James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[05W47452]
Machine Id
JOHN DEERE PM061215
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (28 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

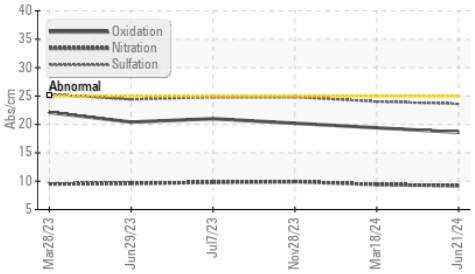
There is no indication of any contamination in the oil.

FLUID CONDITION

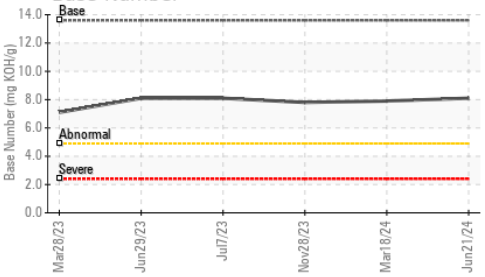
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**JR0218257**	JR0208325	JR0192471
Sample Date		Client Info		**21 Jun 2024**	18 Mar 2024	28 Nov 2023
Machine Age	hrs	Client Info		**2537**	2045	1509
Oil Age	hrs	Client Info		**492**	1477	568
Filter Age	hrs	Client Info		**492**	0	0
Oil Changed		Client Info		**Changed**	Changed	N/A
Filter Changed		Client Info		**Changed**	Changed	N/A
Sample Status				**NORMAL**	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	**49**	48	▲ 56
Chromium	ppm	ASTM D5185m	>11	**1**	1	1
Nickel	ppm	ASTM D5185m	>5	**13**	8	9
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>31	**5**	5	6
Lead	ppm	ASTM D5185m	>26	**3**	3	<1
Copper	ppm	ASTM D5185m	>26	**10**	13	18
Tin	ppm	ASTM D5185m	>4	**1**	1	1
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	**11**	11	13
Potassium	ppm	ASTM D5185m	>20	**3**	2	2
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	**0.6**	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	**9.2**	9.4	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.6**	24.0	24.8
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	**<1**	2	3
Boron	ppm	ASTM D5185m		**135**	115	95
Barium	ppm	ASTM D5185m		**2**	0	0
Molybdenum	ppm	ASTM D5185m		**257**	217	243
Manganese	ppm	ASTM D5185m		**1**	1	<1
Magnesium	ppm	ASTM D5185m		**784**	723	786
Calcium	ppm	ASTM D5185m		**1462**	1708	1452
Phosphorus	ppm	ASTM D5185m		**747**	895	894
Zinc	ppm	ASTM D5185m		**1029**	1110	1100
Sulfur	ppm	ASTM D5185m		**2547**	3158	2833
Oxidation	Abs/.1mm	*ASTM D7414	>25	**18.6**	19.4	20.2
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	**8.1**	7.9	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	**13.8**	13.5	14.0

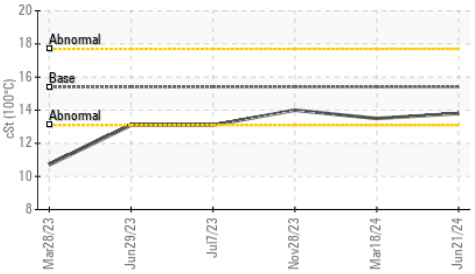
FT-IR (Direct Trend)



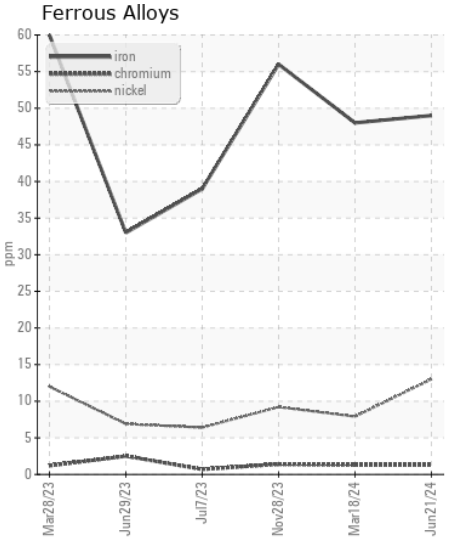
Base Number



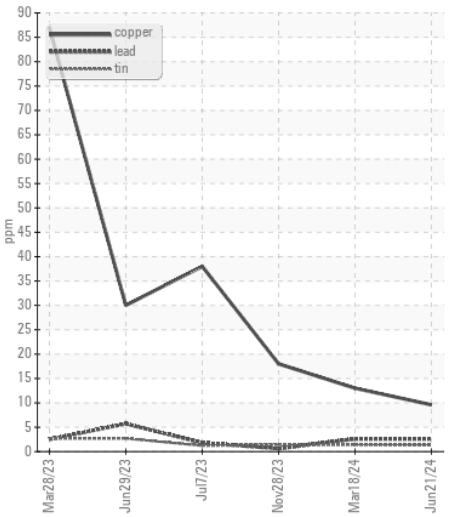
Viscosity @ 100°C



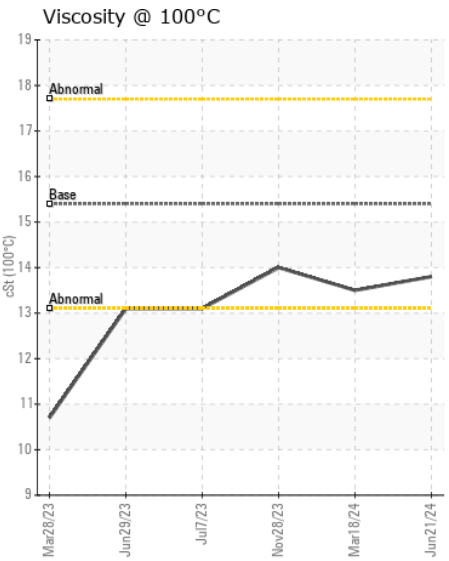
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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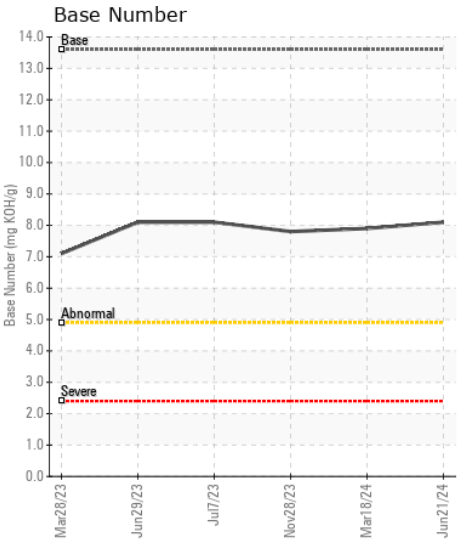

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218257
Lab Number : 06219537
Unique Number : 11097734
Test Package : CONST (Additional Tests: TBN)

Received : 25 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 26 Jun 2024 - Wes Davis

FITZGERALD EXCAVATING
PO BOX 2168
WINCHESTER, VA
US 22604
Contact: Service Manager

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)

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