James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 1FF350GXCHF812280
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (28 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

CONTAMINATION

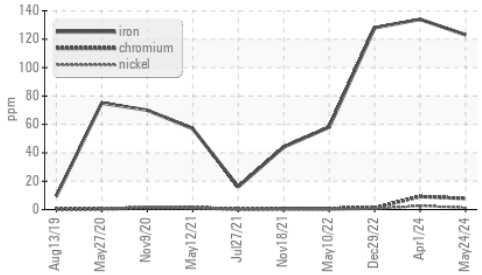
There is no indication of any contamination in the oil.

FLUID CONDITION

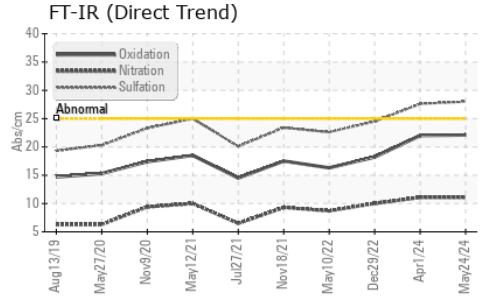
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0195488	JR0208318	JR0157642
Sample Date		Client Info		24 May 2024	01 Apr 2024	29 Dec 2022
Machine Age	hrs	Client Info		6316	6224	4991
Oil Age	hrs	Client Info		0	0	4991
Filter Age	hrs	Client Info		0	0	4991
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	▲ 123	▲ 134	▲ 128
Chromium	ppm	ASTM D5185m	>11	8	9	1
Nickel	ppm	ASTM D5185m	>5	1	3	<1
Titanium	ppm	ASTM D5185m		<1	1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	6	8	5
Lead	ppm	ASTM D5185m	>26	11	13	1
Copper	ppm	ASTM D5185m	>26	7	8	3
Tin	ppm	ASTM D5185m	>4	2	2	<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	10	13	10
Potassium	ppm	ASTM D5185m	>20	3	5	4
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	0.9	0.9	0.5
Nitration	Abs/cm	*ASTM D7624	>20	11.1	11.1	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.0	27.6	24.5
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	0.2%	NEG
Sodium	ppm	ASTM D5185m	>31	6	5	4
Boron	ppm	ASTM D5185m		10	24	113
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		223	268	254
Manganese	ppm	ASTM D5185m		2	2	1
Magnesium	ppm	ASTM D5185m		719	826	811
Calcium	ppm	ASTM D5185m		1383	1546	1480
Phosphorus	ppm	ASTM D5185m		773	927	857
Zinc	ppm	ASTM D5185m		917	1097	1076
Sulfur	ppm	ASTM D5185m		2678	2965	3565
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.1	22.0	18.2
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.6	7.5	9.2
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.5	13.3

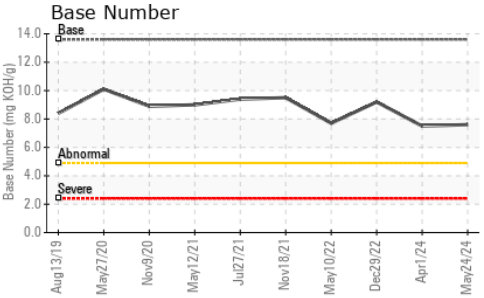
Ferrous Alloys



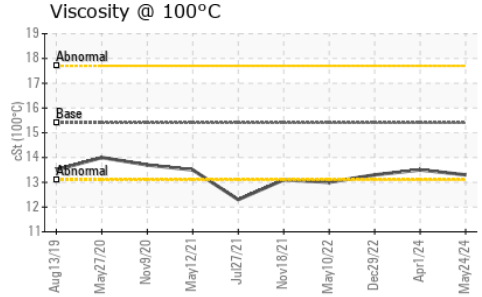
FT-IR (Direct Trend)



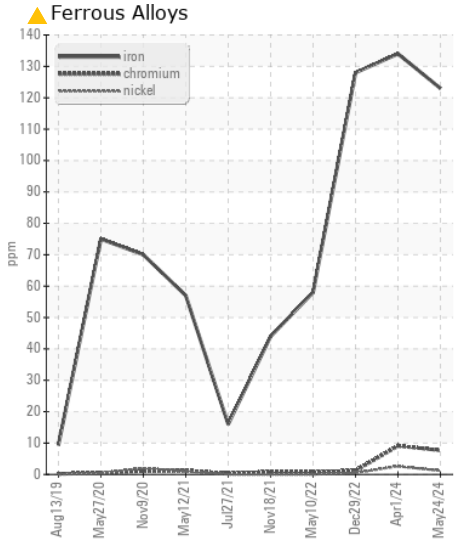
Base Number



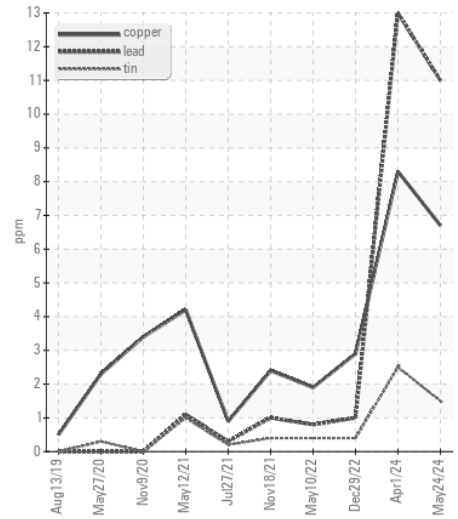
Viscosity @ 100°C



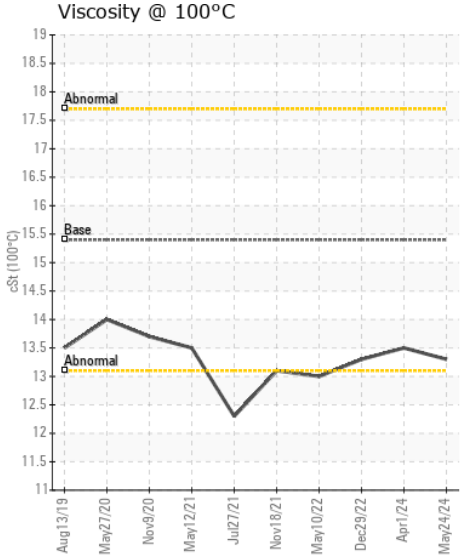
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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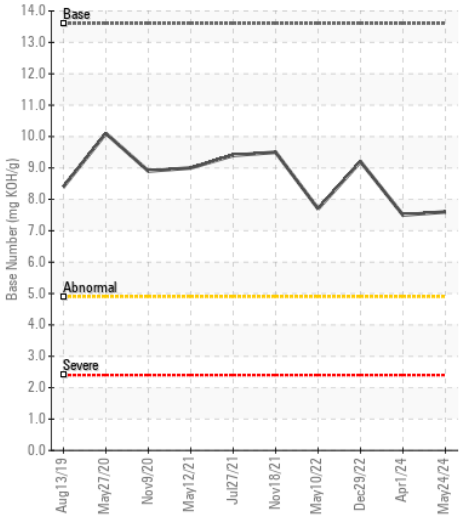

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0195488
Lab Number : 06196102
Unique Number : 11058225
Test Package : CONST (Additional Tests: TBN)

Received : 30 May 2024
Tested : 31 May 2024
Diagnosed : 02 Jun 2024 - Don Baldridge

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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