James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE PM061170
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Valve wear is indicated. All other component wear rates are normal.

CONTAMINATION

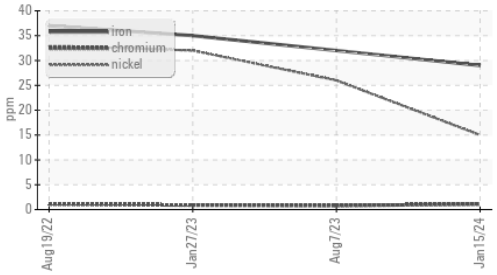
There is no indication of any contamination in the oil.

FLUID CONDITION

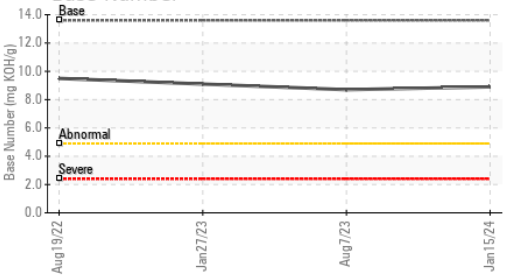
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0199481	JR0169003	JR0160027
Sample Date		Client Info		15 Jan 2024	07 Aug 2023	27 Jan 2023
Machine Age	hrs	Client Info		2468	1992	1452
Oil Age	hrs	Client Info		476	540	477
Filter Age	hrs	Client Info		476	540	477
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	29	32	35
Chromium	ppm	ASTM D5185m	>11	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	▲ 15	▲ 26	▲ 32
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	6	4	3
Lead	ppm	ASTM D5185m	>26	<1	1	<1
Copper	ppm	ASTM D5185m	>26	5	6	4
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	11	8	8
Potassium	ppm	ASTM D5185m	>20	3	2	7
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	0.4	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.6	9.0	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	22.7	21.8
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	2	3	1
Boron	ppm	ASTM D5185m		197	195	226
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		254	266	266
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		821	891	799
Calcium	ppm	ASTM D5185m		1398	1645	1521
Phosphorus	ppm	ASTM D5185m		947	973	923
Zinc	ppm	ASTM D5185m		1108	1187	1121
Sulfur	ppm	ASTM D5185m		3093	3774	3178
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	16.8	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.9	8.7	9.1
Visc @ 100°C	cSt	ASTM D445	15.4	13.2	13.5	13.2

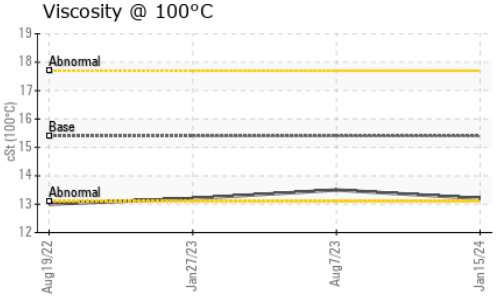
Ferrous Alloys



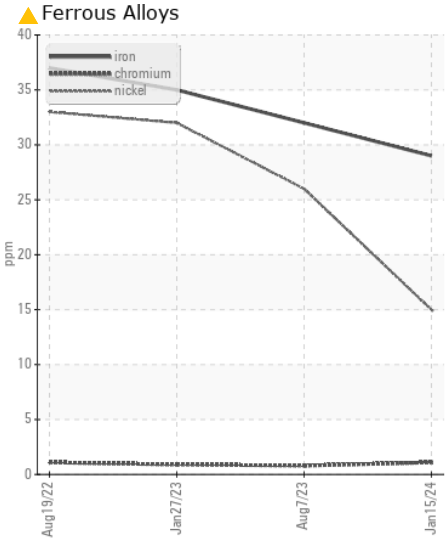
Base Number



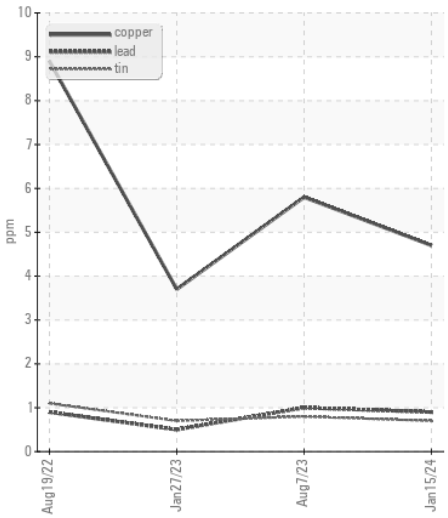
Viscosity @ 100°C



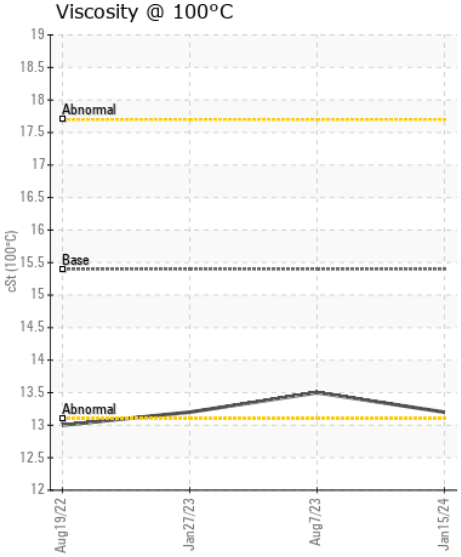
Ferrous Alloys



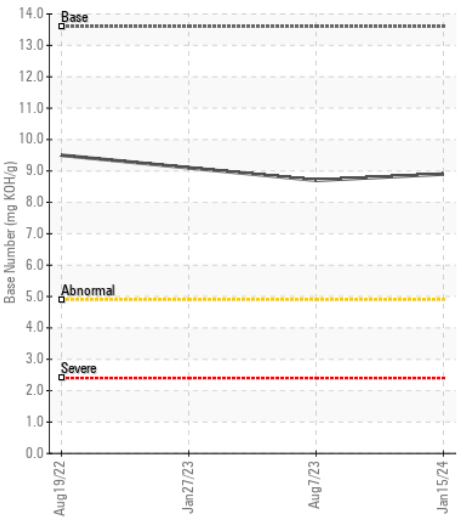
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: JR0199481	**Recieved**	: 17 Jan 2024
Lab Number	: 06063288	**Diagnosed**	: 19 Jan 2024
Unique Number	: 10834670	**Diagnostician**	: Don Baldridge
Test Package	: CONST (Additional Tests: TBN)		

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)

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