



WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
EPIROC D60 G18SED0760
 Component
Left Final Drive
 Fluid
JOHN DEERE GL-5 80W90 (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0202773	JR0197306	JR0186403
Sample Date		Client Info		20 Feb 2024	16 Jan 2024	08 Sep 2023
Machine Age	hrs	Client Info		9966	9736	9172
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		None	N/A	Not Changd
Sample Status				SEVERE	NORMAL	ABNORMAL

WEAR

Bearing and/or bushing wear is indicated. Gear wear is indicated.

PQ		ASTM D8184		942	11	240
Iron	ppm	ASTM D5185m	>500	▲ 1082	0	347
Chromium	ppm	ASTM D5185m	>10	▲ 9	0	2
Nickel	ppm	ASTM D5185m	>10	▲ 5	0	1
Titanium	ppm	ASTM D5185m		12	0	2
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	▲ 146	0	▲ 26
Lead	ppm	ASTM D5185m	>25	● 126	0	▲ 108
Copper	ppm	ASTM D5185m	>50	● 154	<1	▲ 103
Tin	ppm	ASTM D5185m	>10	2	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

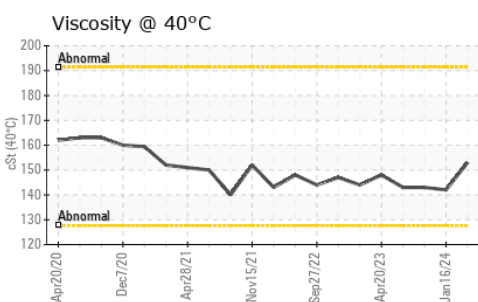
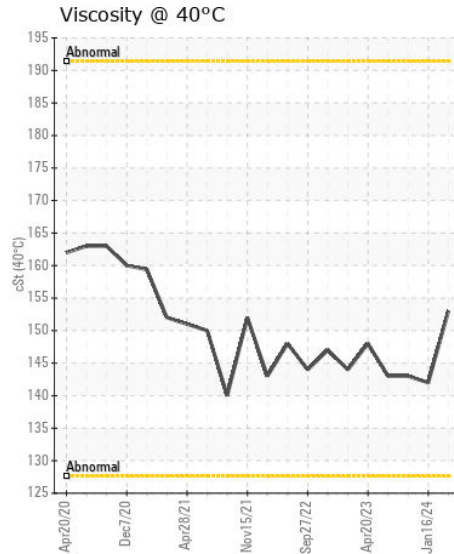
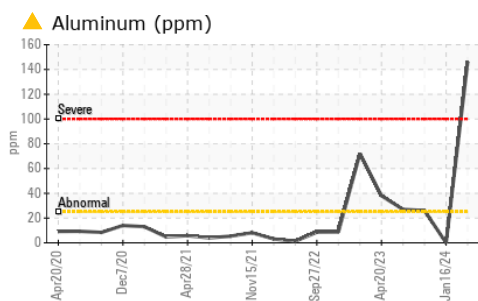
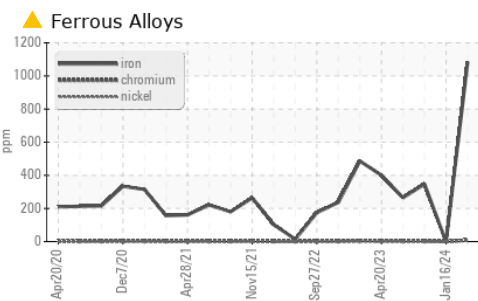
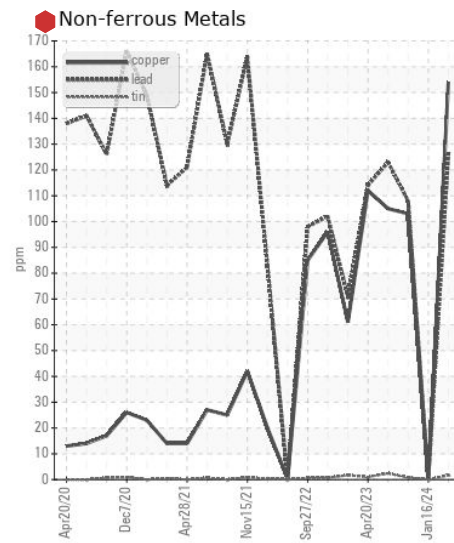
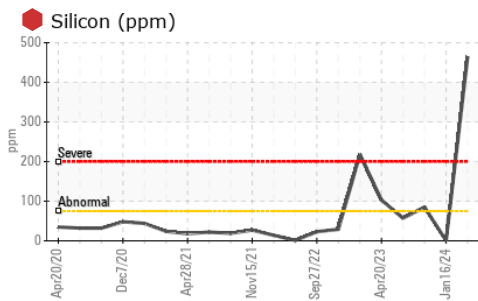
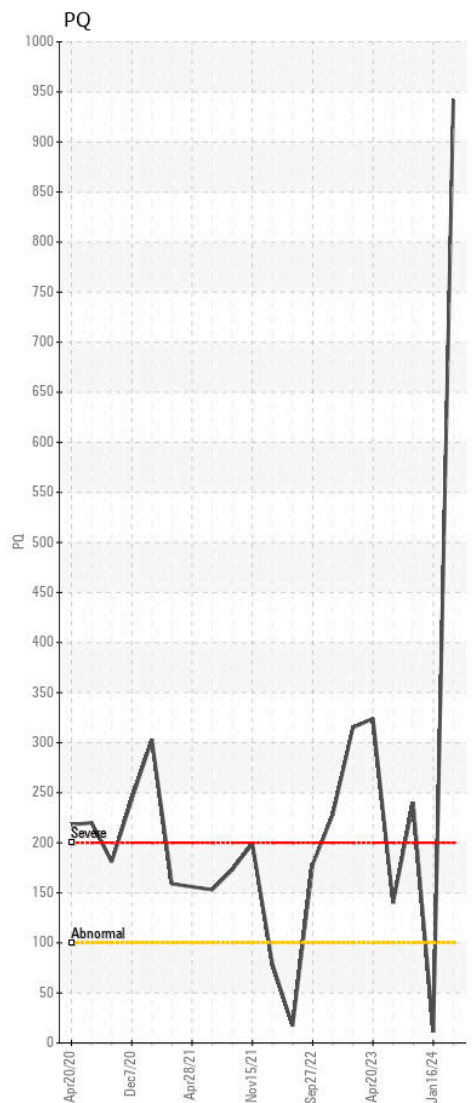
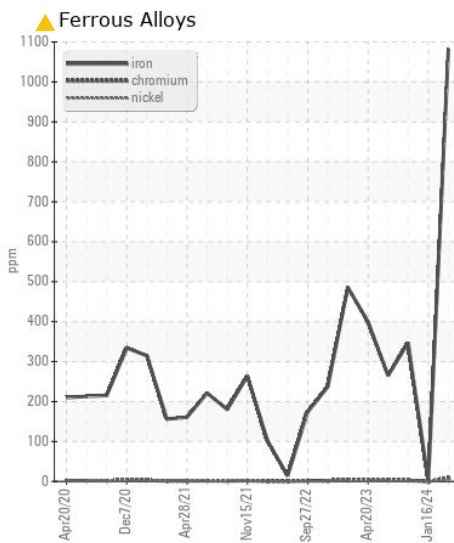
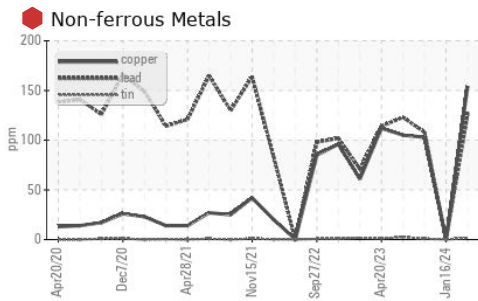
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	● 465	<1	▲ 85
Potassium	ppm	ASTM D5185m	>20	41	0	9
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	MODER
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		39	<1	10
Boron	ppm	ASTM D5185m		12	0	9
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	<1
Manganese	ppm	ASTM D5185m		10	0	4
Magnesium	ppm	ASTM D5185m		39	0	11
Calcium	ppm	ASTM D5185m		135	2	127
Phosphorus	ppm	ASTM D5185m		2144	329	2023
Zinc	ppm	ASTM D5185m		164	0	81
Sulfur	ppm	ASTM D5185m		25259	18976	25056
Visc @ 40°C	cSt	ASTM D445		153	142	143



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0202773
Lab Number : 06097247
Unique Number : 10890100
Test Package : CONST (Additional Tests: PQ)

RDU - MARTIN MARIETTA
 PO BOX 30013
 RALEIGH, NC
 US 27622
 Contact: Chad Franks
 chad.franks@martinmarietta.com
 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)