



OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
Store 9 - Marietta

Machine Id
JOHN DEERE 85G 1FF085GXTNJ024061

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 10W30 (3 GAL)

RECOMMENDATION

Check for low coolant level. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: PLUS 50 II 10/30 BREAK IN OIL)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0049798	---	---
Sample Date		Client Info		08 Jul 2024	---	---
Machine Age	hrs	Client Info		465	---	---
Oil Age	hrs	Client Info		465	---	---
Filter Age	hrs	Client Info		465	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	37	---	---
Chromium	ppm	ASTM D5185m	>11	1	---	---
Nickel	ppm	ASTM D5185m	>5	1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>31	6	---	---
Lead	ppm	ASTM D5185m	>26	<1	---	---
Copper	ppm	ASTM D5185m	>26	6	---	---
Tin	ppm	ASTM D5185m	>4	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

Sodium and/or potassium levels are high. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

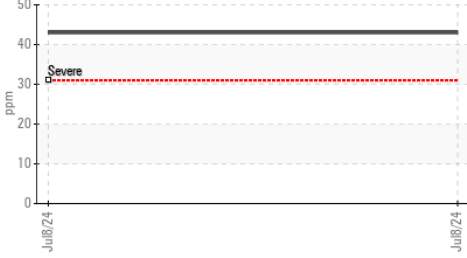
Silicon	ppm	ASTM D5185m	>120	43	---	---
Potassium	ppm	ASTM D5185m	>20	195	---	---
Fuel		WC Method	>2.1	<1.0	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.2	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.6	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.21	NEG	---	---

FLUID CONDITION

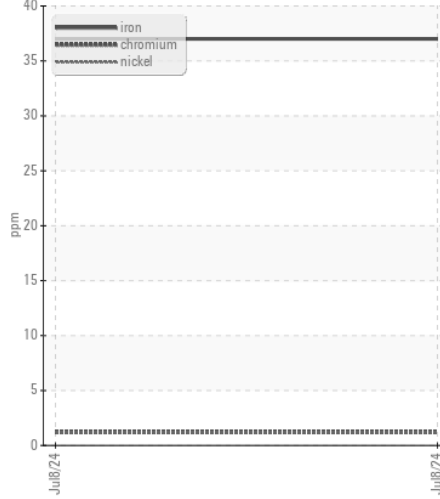
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>31	16	---	---
Boron	ppm	ASTM D5185m		221	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		179	---	---
Manganese	ppm	ASTM D5185m		1	---	---
Magnesium	ppm	ASTM D5185m		39	---	---
Calcium	ppm	ASTM D5185m		2214	---	---
Phosphorus	ppm	ASTM D5185m		621	---	---
Zinc	ppm	ASTM D5185m		769	---	---
Sulfur	ppm	ASTM D5185m		2355	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.5	---	---
Visc @ 100°C	cSt	ASTM D445		10.3	---	---

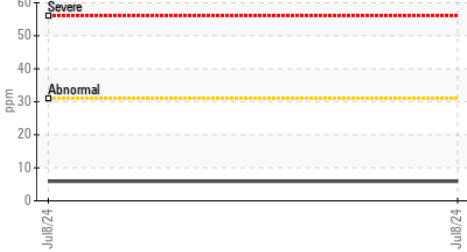
▲ Silicon (ppm)



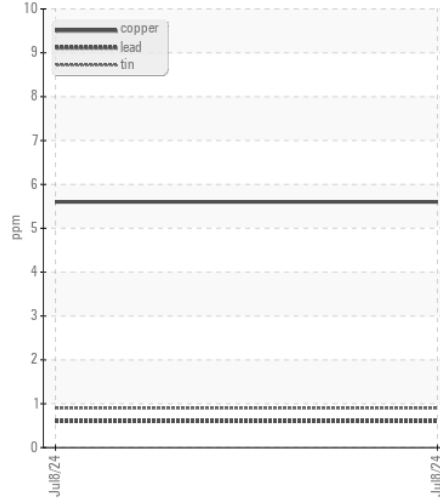
Ferrous Alloys



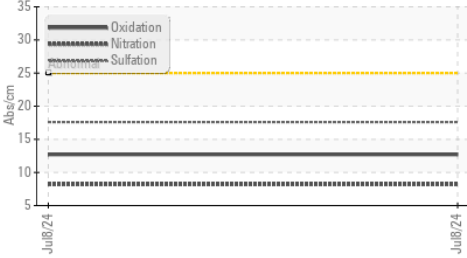
● Aluminum (ppm)



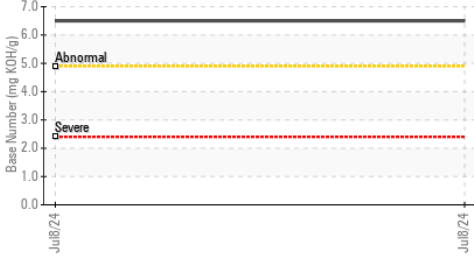
Non-ferrous Metals



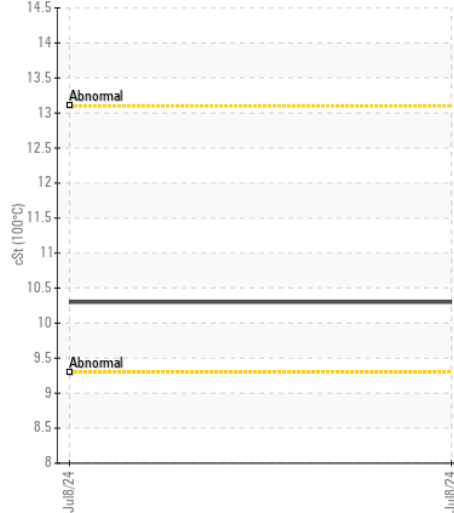
FT-IR (Direct Trend)



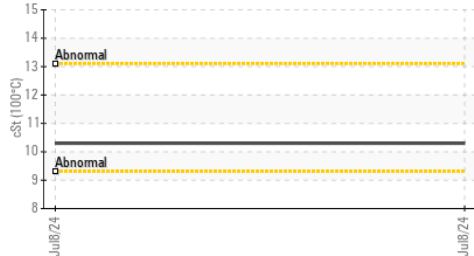
Base Number



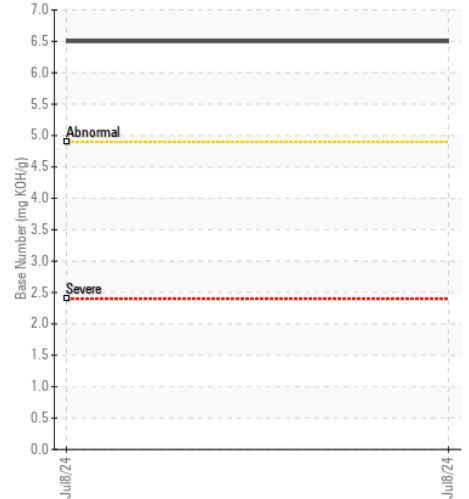
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : LEC0049798 Received : 10 Jul 2024
 Lab Number : 06232104 Tested : 12 Jul 2024
 Unique Number : 11115597 Diagnosed : 12 Jul 2024 - Sean Felton
 Test Package : CONST (Additional Tests: Glycol, TBN)

LESLIE EQUIPMENT COMPANY
 105 TENNIS CENTER DR.
 MARIETTA, OH
 US 45750-9765
 Contact: LEANNE KENDALL
 KendalLeanne@lec1.com

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)

T: (740)373-5570