



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
Store 1 - Cowen [147365]
Machine Id
JOHN DEERE 550K 1T0550KXKGF300306
Component
Hydraulic System
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0047424	LEC0035056	LEC0028007
Sample Date		Client Info		31 Jan 2024	08 Dec 2022	15 Feb 2022
Machine Age	hrs	Client Info		4567	3843	3385
Oil Age	hrs	Client Info		1679	3843	3385
Filter Age	hrs	Client Info		1679	3843	3385
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	None	Not Chngd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

The iron level is abnormal.

PQ		ASTM D8184	>50	46	7	16
Iron	ppm	ASTM D5185m	>23	▲ 44	4	0
Chromium	ppm	ASTM D5185m	>9	2	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>9	5	<1	<1
Lead	ppm	ASTM D5185m	>28	0	0	<1
Copper	ppm	ASTM D5185m	>51	3	4	4
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

High concentration of visible dirt/debris present in the oil.

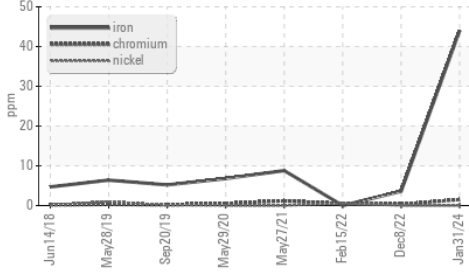
Silicon	ppm	ASTM D5185m	>31	23	2	1
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	---	2110	7296
Particles >6µm		ASTM D7647	>20000	---	186	1581
Particles >14µm		ASTM D7647	>640	---	8	165
Particles >21µm		ASTM D7647	>160	---	2	34
Particles >38µm		ASTM D7647	>40	---	0	2
Particles >71µm		ASTM D7647	>10	---	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	---	18/15/10	20/18/15
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ HEAVY	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	>0.075	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>21	<1	<1	0
Boron	ppm	ASTM D5185m	6	0	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	<1	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	145	20	0	1
Calcium	ppm	ASTM D5185m	3570	732	89	96
Phosphorus	ppm	ASTM D5185m	1290	693	640	669
Zinc	ppm	ASTM D5185m	1640	851	764	874
Sulfur	ppm	ASTM D5185m		1846	1807	1537
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	0.75	0.64	0.67
Visc @ 40°C	cSt	ASTM D445	57.0	55.8	57.0	58.4

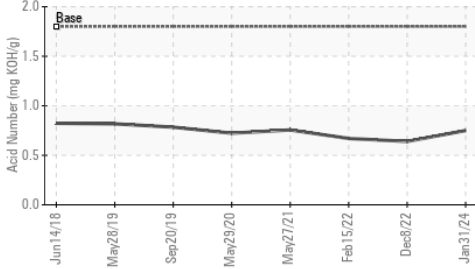
▲ Ferrous Alloys



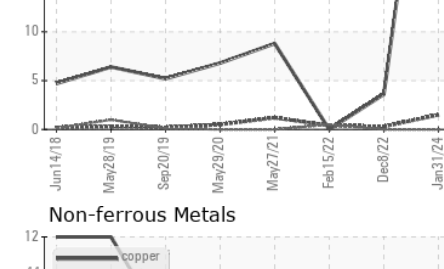
▲ Ferrous Alloys



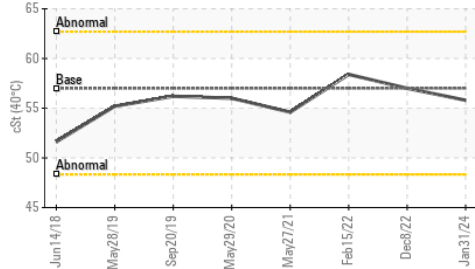
Acid Number



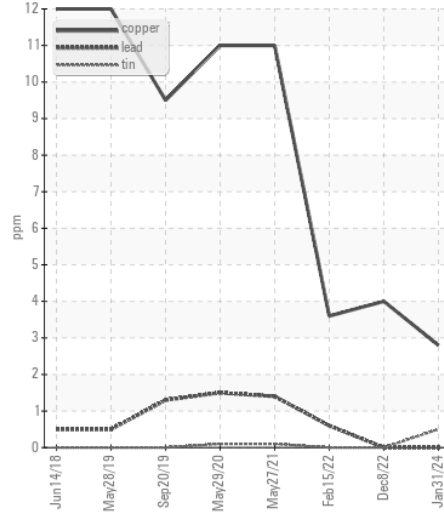
Acid Number



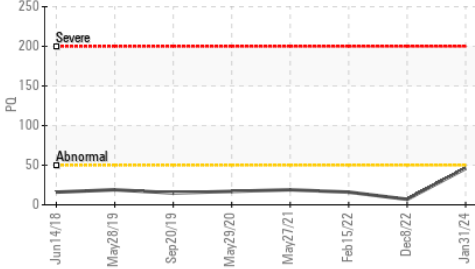
Viscosity @ 40°C



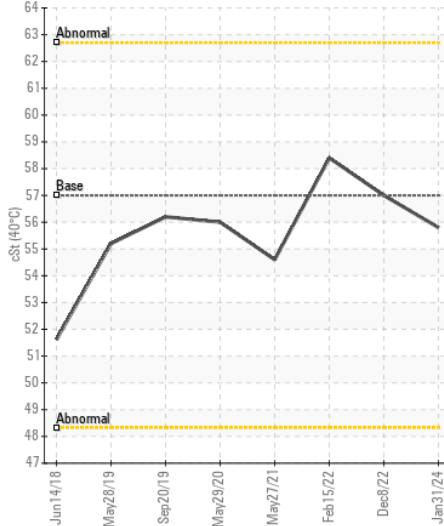
Non-ferrous Metals



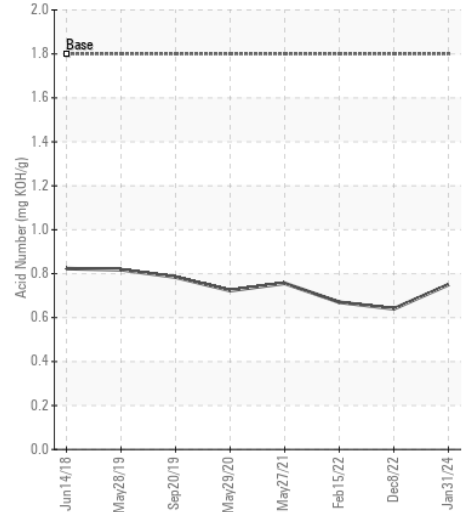
PQ



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0047424 **Received** : 08 Feb 2024
Lab Number : 06083533 **Tested** : 10 Feb 2024
Unique Number : 10870978 **Diagnosed** : 10 Feb 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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)

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