LESLIE EQUIPMENT CO.

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Store 1 - Cowen [141340]
Machine Id
JOHN DEERE 648H 1DW648HXPED660415
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

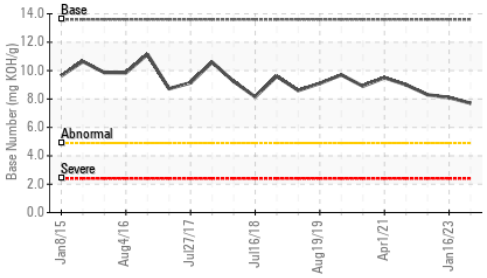
There is no indication of any contamination in the oil.

FLUID CONDITION

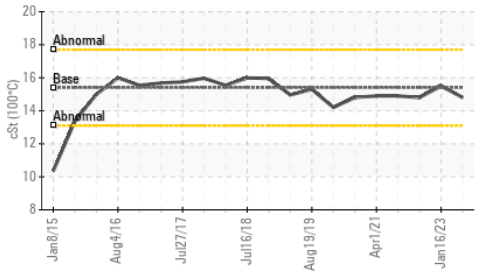
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0040540	LEC0035078	LEC0026880
Sample Date		Client Info		22 Aug 2023	16 Jan 2023	27 May 2022
Machine Age	hrs	Client Info		9874	9327	8763
Oil Age	hrs	Client Info		547	564	493
Filter Age	hrs	Client Info		547	564	493
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>51	39	43	45
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	7	3	3
Lead	ppm	ASTM D5185m	>26	2	5	2
Copper	ppm	ASTM D5185m	>26	3	2	<1
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>!20	9	7	6
Potassium	ppm	ASTM D5185m	>20	<1	<1	3
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	1.5	2.4	1.2
Nitration	Abs/cm	*ASTM D7624	>20	9.3	9.8	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8	25.9	22.3
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	1	0	0
Boron	ppm	ASTM D5185m		217	159	186
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		277	233	227
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		898	806	644
Calcium	ppm	ASTM D5185m		1587	1534	1640
Phosphorus	ppm	ASTM D5185m		1011	850	914
Zinc	ppm	ASTM D5185m		1229	1119	1109
Sulfur	ppm	ASTM D5185m		3936	3132	3754
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	16.3	15.0
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.7	8.1	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	14.8	15.5	14.8

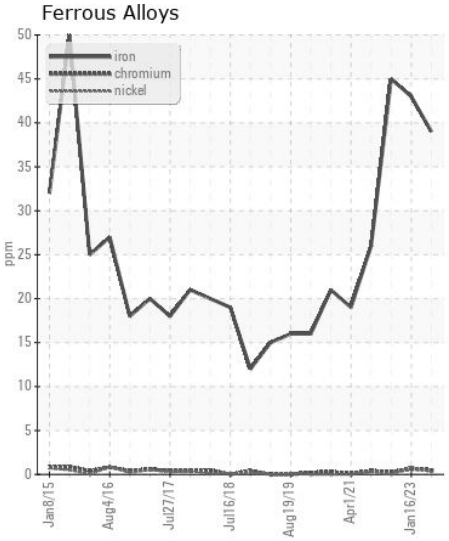
Base Number



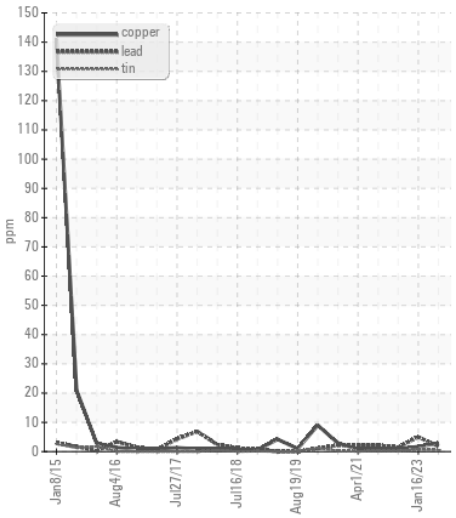
Viscosity @ 100°C



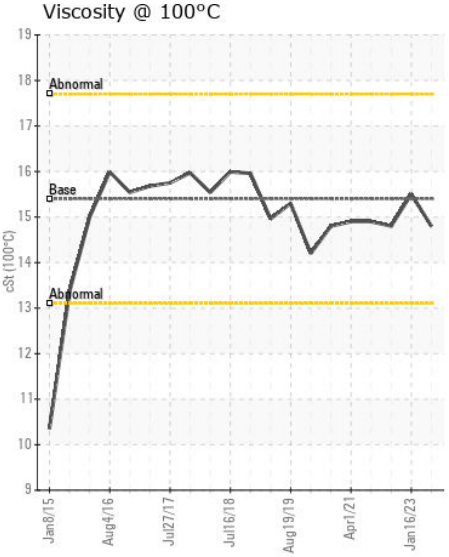
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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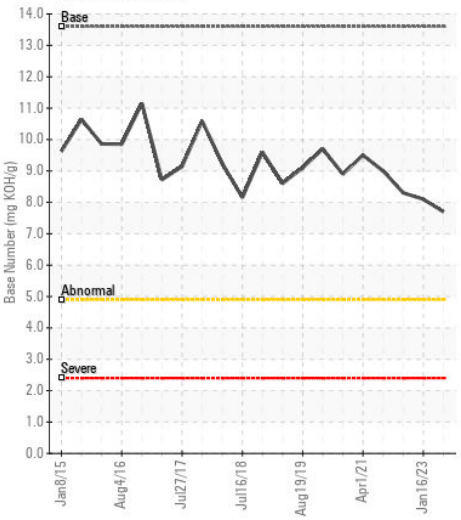

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0040540 **Received** : 25 Aug 2023
Lab Number : 05934805 **Tested** : 25 Aug 2023
Unique Number : 10620076 **Diagnosed** : 25 Aug 2023 - Wes Davis
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)

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