LESLIE EQUIPMENT CO.

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Area
Store 9 - Marietta
Machine Id
GMC 2500HD 1GT49LEY9PF212135
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (11 QTS)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

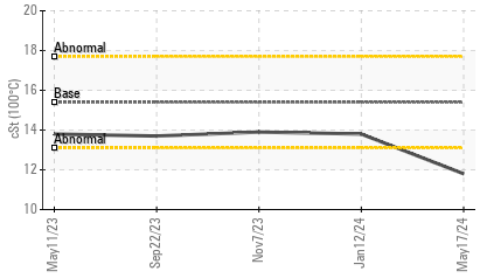
Light fuel dilution occurring.

FLUID CONDITION

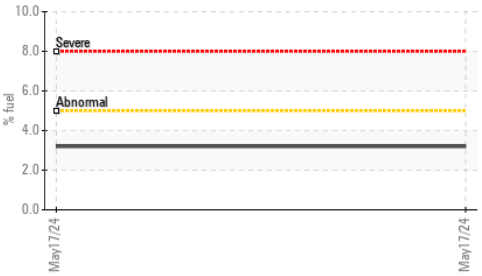
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0050579	LEC0047229	LEC0045561
Sample Date		Client Info		17 May 2024	12 Jan 2024	07 Nov 2023
Machine Age	mls	Client Info		66078	47994	40598
Oil Age	mls	Client Info		18084	7396	7966
Filter Age	mls	Client Info		18084	7396	7966
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	76	15	16
Chromium	ppm	ASTM D5185m	>20	5	<1	<1
Nickel	ppm	ASTM D5185m	>4	1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	1	0	<1
Aluminum	ppm	ASTM D5185m	>20	17	13	12
Lead	ppm	ASTM D5185m	>40	2	0	<1
Copper	ppm	ASTM D5185m	>330	161	97	101
Tin	ppm	ASTM D5185m	>15	2	0	1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>!20	10	10	11
Potassium	ppm	ASTM D5185m	>20	34	35	28
Fuel	%	ASTM D3524	>5	▲ 3.2	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	8.0	10.1	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	22.3	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	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		2	0	0
Boron	ppm	ASTM D5185m		161	256	246
Barium	ppm	ASTM D5185m		0	4	<1
Molybdenum	ppm	ASTM D5185m		170	249	255
Manganese	ppm	ASTM D5185m		1	0	<1
Magnesium	ppm	ASTM D5185m		562	802	762
Calcium	ppm	ASTM D5185m		2045	1368	1452
Phosphorus	ppm	ASTM D5185m		1000	875	872
Zinc	ppm	ASTM D5185m		1115	1107	1071
Sulfur	ppm	ASTM D5185m		3483	3281	2975
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	17.7	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.4	8.9	8.9
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.8	13.8	13.9

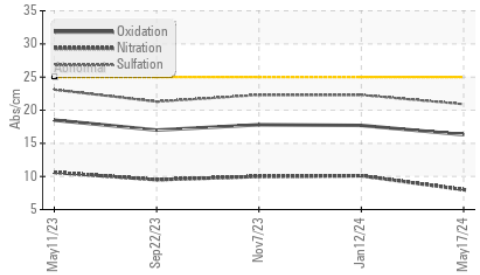
Viscosity @ 100°C



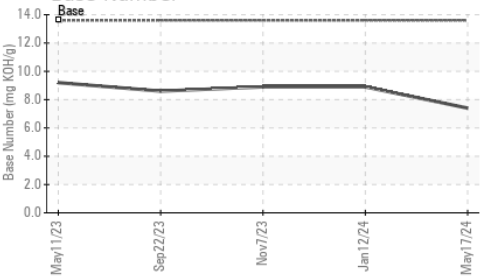
Fuel Dilution



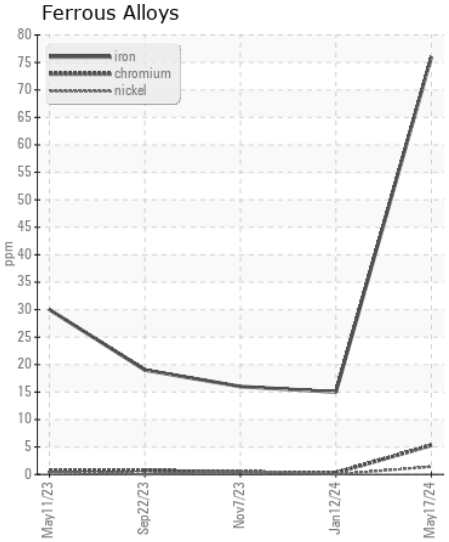
FT-IR (Direct Trend)



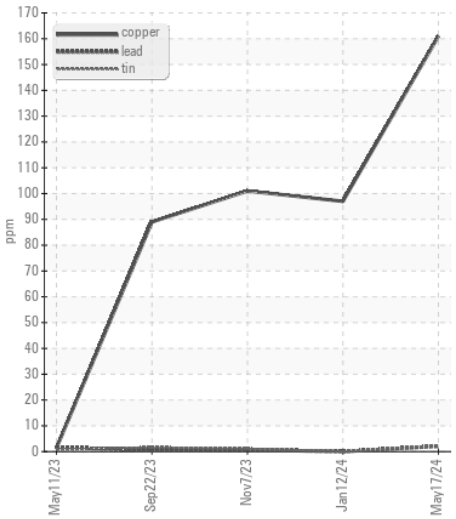
Base Number



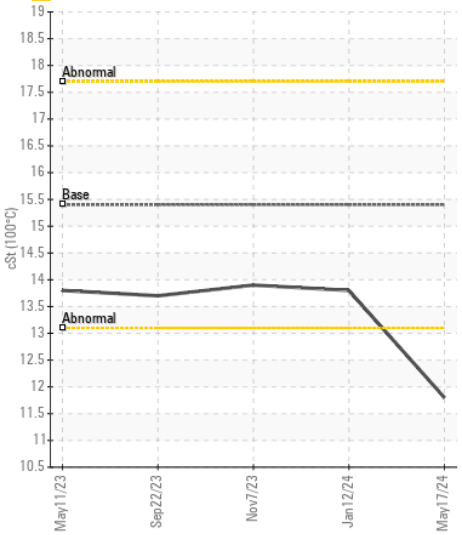
Ferrous Alloys



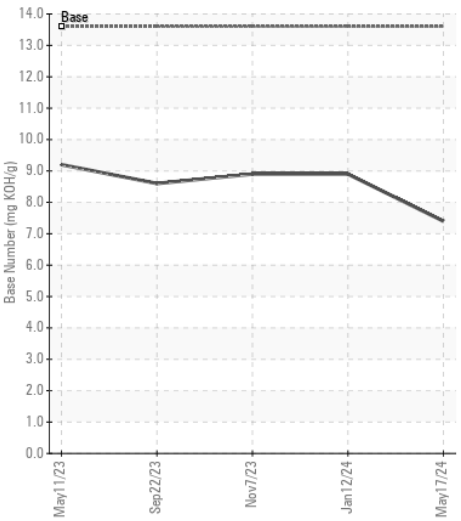
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0050579
Lab Number : 06185973
Unique Number : 11042725
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

Received : 21 May 2024
Tested : 24 May 2024
Diagnosed : 24 May 2024 - Wes Davis

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)

LESLIE EQUIPMENT COMPANY
105 TENNIS CENTER DR.
MARIETTA, OH
US 45750-9765
Contact: LEANNE KENDALL
KendalLeanne@lec1.com
T:
F: (740)373-5570