



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR LTM1120 AT0506 (S/N 090506)
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL 10W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HPL0005068	HPL0002437	HPL0003360
Sample Date		Client Info		15 Apr 2024	13 Sep 2023	17 Mar 2023
Machine Age	hrs	Client Info		4645	3896	3157
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	5	5	6
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>15	8	0	3
Lead	ppm	ASTM D5185m	>30	1	0	1
Copper	ppm	ASTM D5185m	>125	7	5	13
Tin	ppm	ASTM D5185m	>5	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

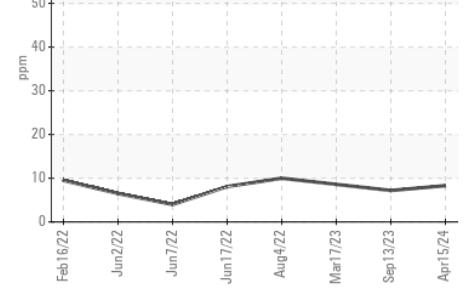
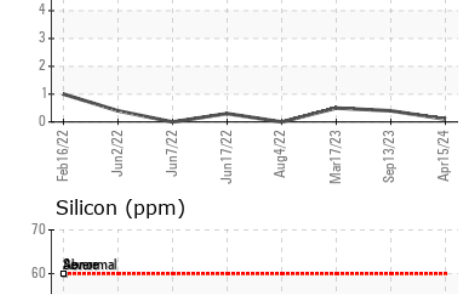
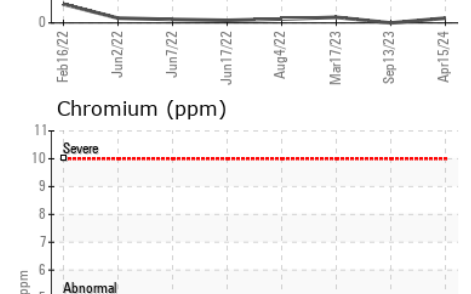
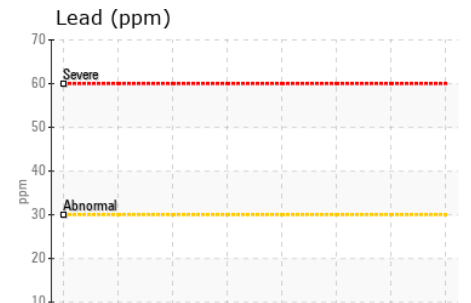
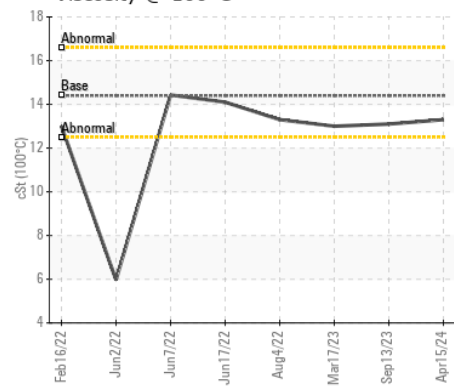
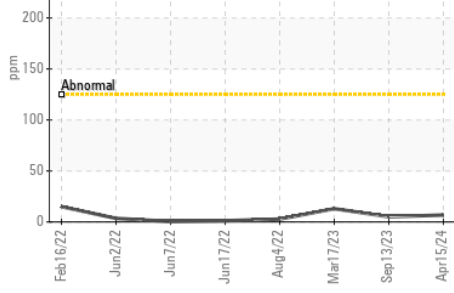
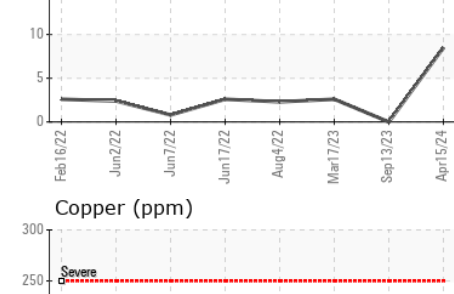
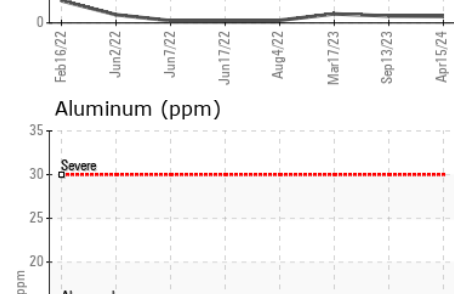
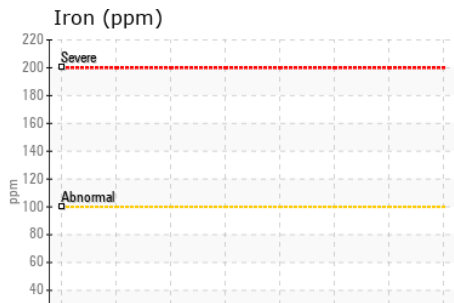
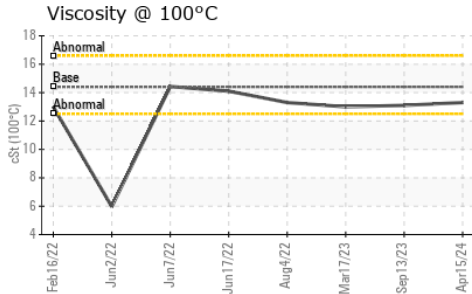
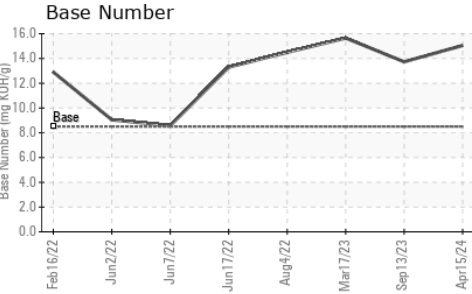
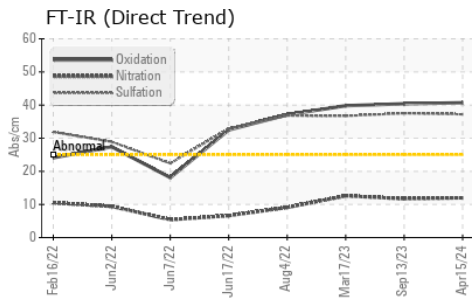
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	8	7	9
Potassium	ppm	ASTM D5185m	>20	2	0	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	12.0	11.7	12.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	37.2	37.5	36.7
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

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.

Sodium	ppm	ASTM D5185m		3	0	0
Boron	ppm	ASTM D5185m	250	18	13	3
Barium	ppm	ASTM D5185m	10	<1	<1	0
Molybdenum	ppm	ASTM D5185m	100	581	610	536
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	450	982	1085	918
Calcium	ppm	ASTM D5185m	3000	2484	2882	2505
Phosphorus	ppm	ASTM D5185m	1150	1114	1155	1016
Zinc	ppm	ASTM D5185m	1350	1278	1446	1220
Sulfur	ppm	ASTM D5185m	4250	9188	10541	7105
Oxidation	Abs/.1mm	*ASTM D7414	>25	40.7	40.4	39.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	15.05	13.73	15.65
Visc @ 100°C	cSt	ASTM D445	14.4	13.3	13.1	13.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HPL0005068
Lab Number : 06152183
Unique Number : 10982261
Test Package : MOB 2
Received : 17 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 22 Apr 2024 - Don Baldrige

STEVENS ON CRANE
 410 STEVENSON DR
 BOLINGBROOK, IL
 US 60440
 Contact: DAVE KOEHNE
 davidk@stevensoncrane.com
 T: (630)972-9199
 F:

Certificate L2367
 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)