



LIEBHERR

OIL ANALYSIS REPORT

WEAR

NORMAL

CONTAMINATION

ABNORMAL

FLUID CONDITION

ABNORMAL



Machine Id
LIEBHERR 954-C 060486
Component
Diesel Engine
Fluid
{not provided} (40 LTR)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

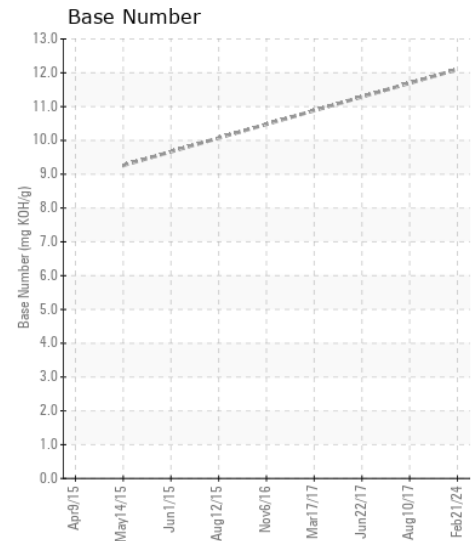
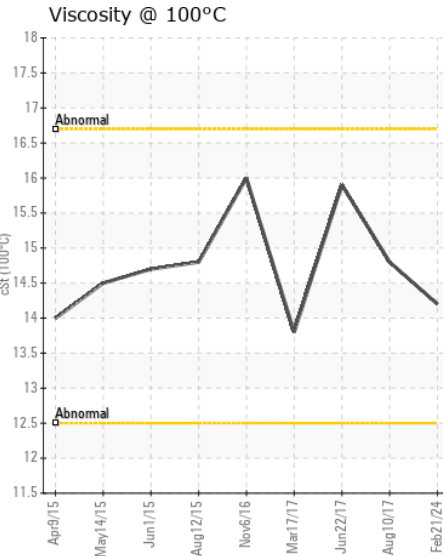
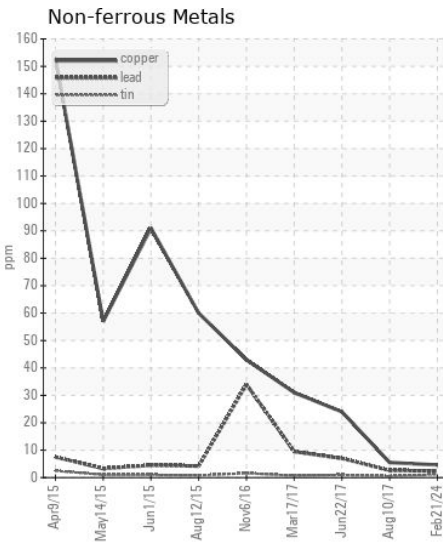
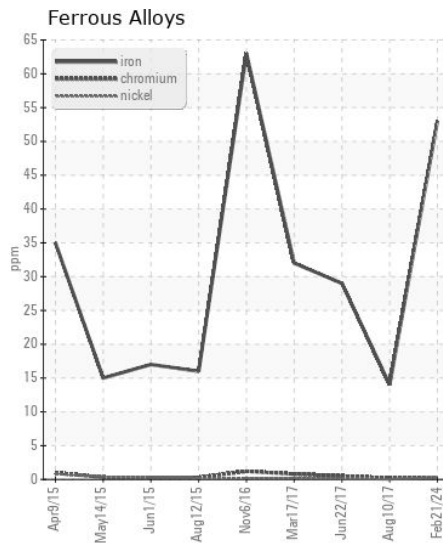
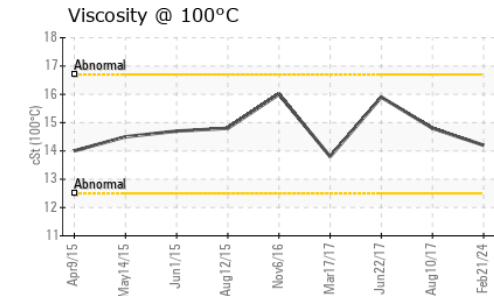
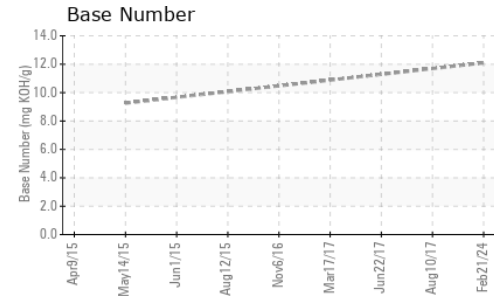
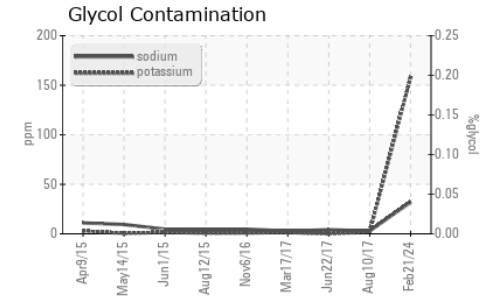
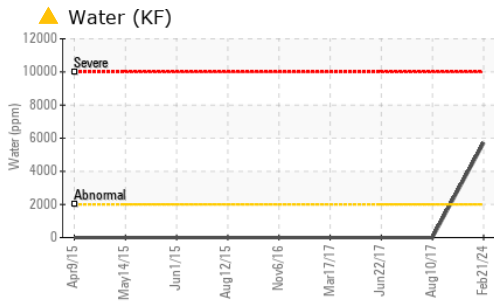
CONTAMINATION

Sodium and/or potassium levels are high. There is a moderate concentration of water present in the oil.

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0273882	LH0102004	LH0116312
Sample Date		Client Info		21 Feb 2024	10 Aug 2017	22 Jun 2017
Machine Age	hrs	Client Info		26014	11500	11400
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	53	14	29
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		55	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	2	2	4
Lead	ppm	ASTM D5185m	>30	2	3	7
Copper	ppm	ASTM D5185m	>125	5	6	24
Tin	ppm	ASTM D5185m	>5	1	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>60	17	7	6
Potassium	ppm	ASTM D5185m	>20	▲ 158	2	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water	%	ASTM D6304	>0.2	▲ 0.571	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 5710	---	---
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.6	0.9
Nitration	Abs/cm	*ASTM D7624	>20	6.0	10.1	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.8	27.9	27.6
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	>0.2	▲ 0.2%	NEG	NEG
Sodium	ppm	ASTM D5185m		▲ 32	3	4
Boron	ppm	ASTM D5185m		47	19	3
Barium	ppm	ASTM D5185m		54	<1	<1
Molybdenum	ppm	ASTM D5185m		17	27	2
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m		404	361	19
Calcium	ppm	ASTM D5185m		1336	2256	2905
Phosphorus	ppm	ASTM D5185m		826	890	1054
Zinc	ppm	ASTM D5185m		1188	1131	1371
Sulfur	ppm	ASTM D5185m		3145	2641	3092
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	21.8	20.0
Base Number (BN)	mg KOH/g	ASTM D2896		12.1	---	---
Visc @ 100°C	cSt	ASTM D445		14.2	14.8	15.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0273882
Lab Number : 06103481
Unique Number : 10901711
Test Package : CONST (Additional Tests: Glycol, KF, TBN)

FRANKLIN IRON & METAL CORP
 1939 EAST 1ST ST
 DAYTON, OH
 US 45403
 Contact: BILL PITTL JR

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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F: