

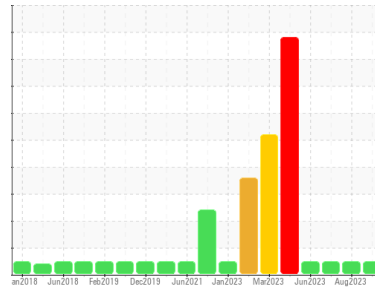


OIL ANALYSIS REPORT



Area
RMR-Trinity
 Machine Id
LIEBHERR LH50M 1216-96585
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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 condition of the oil is acceptable for the time in service. No indication of hydraulic oil intrusion (unconfirmed).

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		DJJ0019887	DJJ0019888	DJJ0019896
Sample Date	Client Info		21 Aug 2023	18 Aug 2023	20 Jul 2023
Machine Age	hrs	Client Info	10694	10683	10527
Oil Age	hrs	Client Info	7	10527	0
Oil Changed	Client Info		Not Chngd	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	2	9	7
Chromium	ppm	ASTM D5185m >5	0	<1	<1
Nickel	ppm	ASTM D5185m >5	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >15	2	1	3
Lead	ppm	ASTM D5185m >30	<1	0	0
Copper	ppm	ASTM D5185m >125	<1	4	1
Tin	ppm	ASTM D5185m >5	<1	<1	0
Vanadium	ppm	ASTM D5185m	<1	<1	<1
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	778	610	856
Barium	ppm	ASTM D5185m 10	0	0	1
Molybdenum	ppm	ASTM D5185m 100	1017	1003	1048
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m 450	108	113	114
Calcium	ppm	ASTM D5185m 3000	501	491	516
Phosphorus	ppm	ASTM D5185m 1150	48	52	54
Zinc	ppm	ASTM D5185m 1350	23	34	38
Sulfur	ppm	ASTM D5185m 4250	3104	2591	2913

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	14	12	14
Sodium	ppm	ASTM D5185m	4	4	3
Potassium	ppm	ASTM D5185m >20	348	353	368
Glycol	%	*ASTM D2982	NEG	NEG	NEG

INFRA-RED

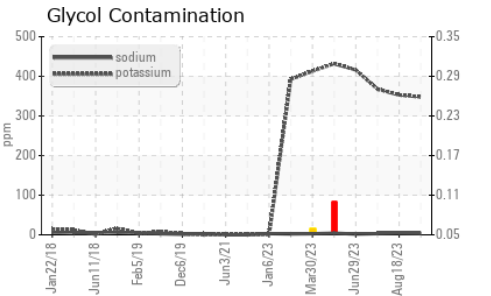
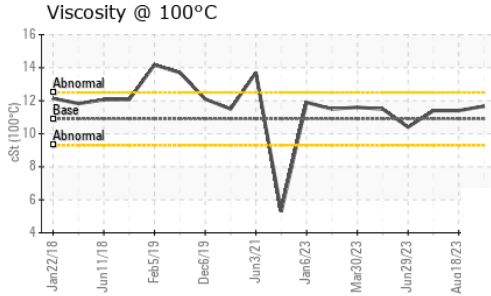
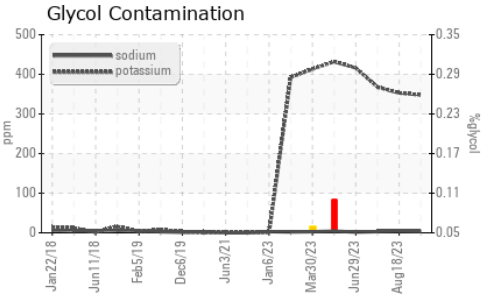
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	4.6	7.0	5.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.0	20.8	22.5

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.0	21.6	20.3
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	3.1	2.4	3.8



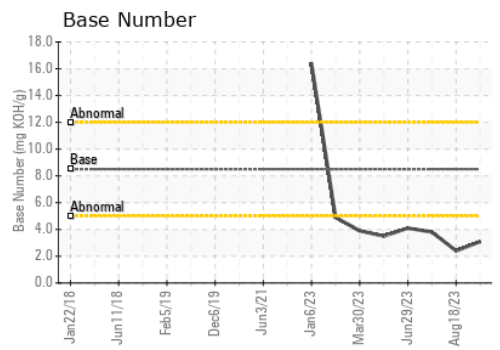
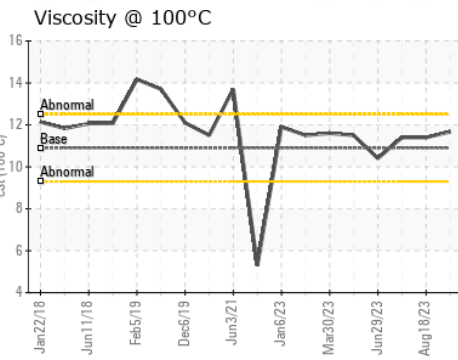
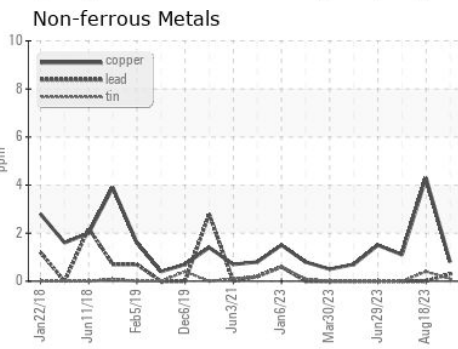
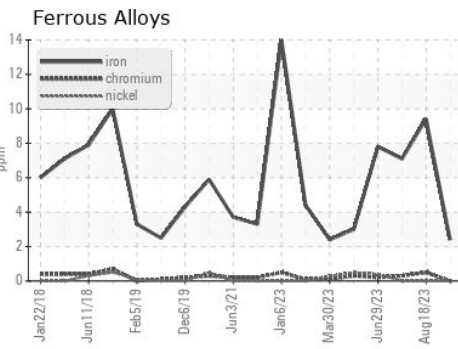
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	10.9	11.67	11.4	11.4

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0019887 **Received** : 22 Aug 2023
Lab Number : **05931282** **Diagnosed** : 22 Aug 2023
Unique Number : 10616553 **Diagnostician** : Doug Bogart
Test Package : CONST (Additional Tests: Glycol, TBN)

RIVER METALS RECYCLING - DECATUR FACILITY
 4301 IVERSON BLVD
 TRINITY, AL
 US 35673
 Contact: LARRY BARBER
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 T:
 F:

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)