

LIEBHERR

CONSTRUCTION EQUIPMENT



[[PRAIRIE MATERIALS]] LIEBHERR R945 055722-1866 - Diese

Sample No: LH0273354

Oil Type: DIESEL ENGINE OIL SAE 5W40



Sample Information

Sample Number	LH0273354	LH0254655	LH0236131	---
Sample Date	03 Apr 2024	15 Aug 2023	28 Oct 2022	---
Machine Hours	1482	1076	409	---
Oil Hours	500	500	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	MARGINAL	ABNORMAL	---

FINKBINER EQUIPMENT CO.
 15 W 400 N FRONTAGE RD
 BURR RIDGE, IL
 US 60527
 Contact: DON FITZGERALD
 dfitzgerald@finkbiner.com
 T: (815)546-8991
 F: (630)654-3792



Oil Condition

Visc @ 100°C	cSt	13.8	13.0	12.1	---
Base Number (BN)	mg KOH/g	6.3	5.7	5.8	---
Oxidation (PA)	%	68	85	221	---



Contamination

Water	%	NEG	NEG	NEG	---
Soot %	%	0.1	0.1	0.1	---
Nitration (PA)	%	80	88	110	---
Sulfation (PA)	%	60	62	117	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	1.4	---
Silicon	ppm	14	9	8	---
Sodium	ppm	1	2	0	---
Potassium	ppm	8	6	5	---

Diagnosis

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



Wear Metals

Iron	ppm	8	11	12	---
Copper	ppm	42	206	206	---
Lead	ppm	<1	1	2	---
Tin	ppm	<1	1	2	---
Aluminum	ppm	2	4	3	---
Chromium	ppm	<1	<1	1	---
Molybdenum	ppm	6	20	49	---
Nickel	ppm	<1	0	0	---
Titanium	ppm	<1	<1	<1	---
Silver	ppm	0	0	0	---
Manganese	ppm	<1	<1	1	---
Vanadium	ppm	<1	0	0	---



Additives

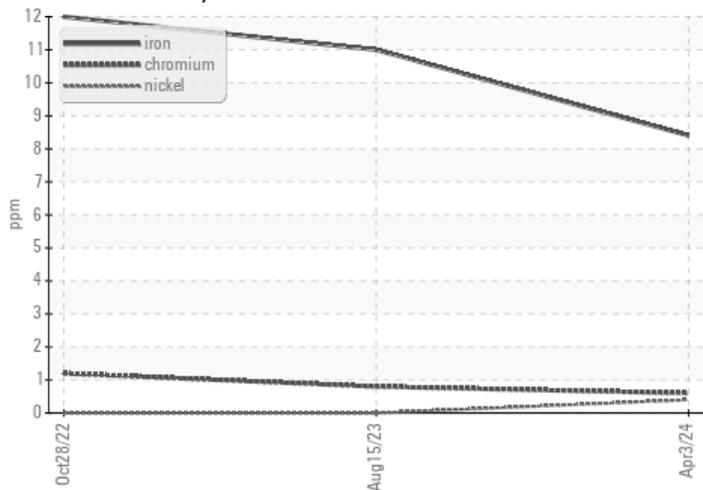
Calcium	ppm	1375	1517	1474	---
Magnesium	ppm	673	643	840	---
Zinc	ppm	878	934	944	---
Phosphorus	ppm	788	769	736	---
Barium	ppm	0	3	36	---
Boron	ppm	54	32	90	---

Depot: LEC0033
Unique No: 10990540
Signed: Wes Davis
Report Date: 22 Apr 2024

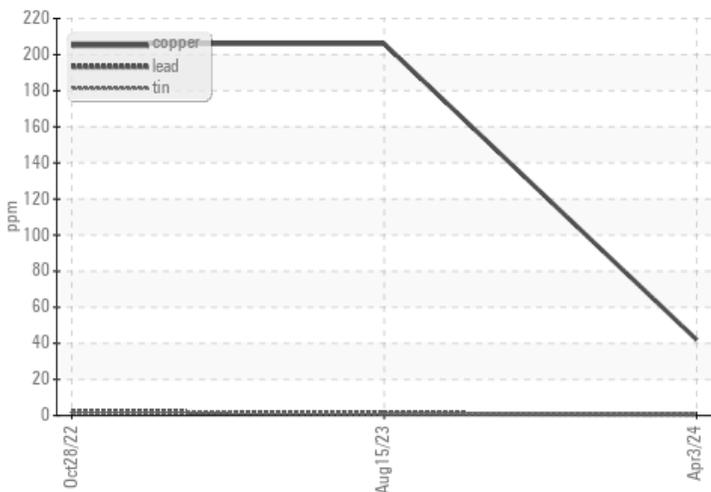


Graphs

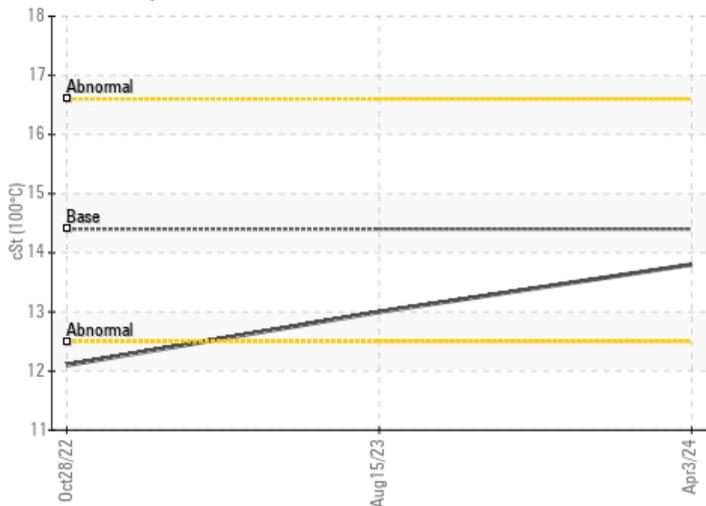
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

