

LIEBHERR

CONSTRUCTION EQUIPMENT



[(375856)] LIEBHERR R930 049712-1716 - Diesel Engine

Sample No: LH0231971

Oil Type: SAE 0W40



SAMPLE INFORMATION

Sample Number	LH0231971	LH0231970	LH0231964	---
Sample Date	15 Jan 2024	13 Jul 2023	22 Sep 2022	---
Machine Hours	2014	1520	1000	---
Oil Hours	0	0	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

COUNTY OF ST. PAUL NO. 19
 5015 - 49 AVENUE
 ST. PAUL, AB
 CA T0A 3A4
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 F:



OIL CONDITION

Visc @ 100°C	cSt	13.6	12.1	11.7	---
Oxidation (PA)	%	71	153	84	---



CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0	0	0	---
Nitration (PA)	%	84	83	77	---
Sulfation (PA)	%	58	90	61	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	1.2	1.1	---
Silicon	ppm	8	11	8	---
Sodium	ppm	2	3	5	---
Potassium	ppm	1	<1	<1	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	4	4	6	---
Copper	ppm	4	14	40	---
Lead	ppm	<1	<1	1	---
Tin	ppm	0	<1	<1	---
Aluminum	ppm	4	3	2	---
Chromium	ppm	<1	<1	<1	---
Molybdenum	ppm	91	100	57	---
Nickel	ppm	<1	0	0	---
Titanium	ppm	0	0	<1	---
Silver	ppm	0	0	0	---
Manganese	ppm	0	<1	<1	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	2262	2029	876	---
Magnesium	ppm	25	135	1119	---
Zinc	ppm	1195	1126	1177	---
Phosphorus	ppm	1034	1028	1049	---
Barium	ppm	<1	<1	1	---
Boron	ppm	50	88	45	---

Depot: COU501STP
 Unique No: 5721208
 Signed: Wes Davis
 Report Date: 30 Jan 2024



GRAPHS

