

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R936 052254-1828 - Diesel Engine

Sample No: LH

Oil Type: PETRO CANADA 10W40



**EXCAVATION DYNAMIC INC.**  
37 CHEMIN HENRI-PETIT  
RIGAUD, QC  
CA J0P 1P0  
Contact: Service Manager



#### SAMPLE INFORMATION

Sample Number	LH	LH0270067	LH0242943	LH0239149
Sample Date	29 Nov 2023	14 Jul 2023	05 Jan 2023	31 Aug 2022
Machine Hours	3501	2990	2451	1920
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	NORMAL	NORMAL



#### OIL CONDITION

Visc @ 100°C	cSt	13.0	11.5	12.7	13.2
Oxidation (PA)	%	63	77	66	61



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	63	78	71	58
Sulfation (PA)	%	52	57	55	55
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	1.6	<1.0	<1.0
Silicon	ppm	6	7	7	6
Sodium	ppm	2	4	2	2
Potassium	ppm	0	<1	<1	0



#### WEAR METALS

Iron	ppm	3	4	4	3
Copper	ppm	4	3	5	9
Lead	ppm	1	<1	<1	<1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	1	<1	2	<1
Chromium	ppm	0	<1	0	0
Molybdenum	ppm	59	58	59	53
Nickel	ppm	0	<1	<1	0
Titanium	ppm	0	0	<1	<1
Silver	ppm	<1	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	1041	868	1201	1091
Magnesium	ppm	1005	1134	994	915
Zinc	ppm	1209	1248	1239	1140
Phosphorus	ppm	975	1082	1087	1024
Barium	ppm	<1	<1	<1	<1
Boron	ppm	4	24	2	3

T:  
F:

#### Diagnosis

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition. Les taux d'usure de tous les composants sont normaux. Il n'y a aucun indice de contamination dans l'huile. L'état de l'huile est acceptable pour la durée de service.

Depot: EXCRIG  
Unique No: 5694215  
Signed: Kevin Marson  
Report Date: 07 Dec 2023



### GRAPHS

