

LIEBHERR

CONSTRUCTION EQUIPMENT



053987-1650 - Diesel Engine

Sample No: LH0274269

Oil Type: SAE 5W30



SAMPLE INFORMATION

Sample Number	LH0274269	LH	LH0250892	LH0227222
Sample Date	02 Oct 2023	04 May 2023	31 Jan 2023	19 Sep 2022
Machine Hours	2037	1500	1076	540
Oil Hours	0	0	0	0
Oil Changed	N/A	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Delsan - American Iron and Metal
 2187 Montee Masson
 Laval, QC
 CA H7B 0A6
 Contact: MANNY MARQUES
 mmarques@delsan-aim.com
 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	13.3	11.6	13.3	12.2
Oxidation (PA)	%	66	83	78	190



CONTAMINATION

Soot %	%	0	0	0	0
Nitration (PA)	%	69	83	75	99
Sulfation (PA)	%	54	60	60	104
Glycol	%	NEG	NEG	0.0	NEG
Fuel	%	<1.0	<1.0	<1.0	0.7
Silicon	ppm	11	8	7	8
Sodium	ppm	2	4	1	3
Potassium	ppm	5	<1	0	5

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. Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	5	5	6	11
Copper	ppm	14	64	273	252
Lead	ppm	2	2	8	8
Tin	ppm	<1	<1	<1	1
Aluminum	ppm	2	2	2	3
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	60	61	58	38
Nickel	ppm	<1	<1	0	0
Titanium	ppm	0	<1	<1	<1
Silver	ppm	<1	0	0	0
Manganese	ppm	0	<1	<1	1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1048	892	1138	1502
Magnesium	ppm	994	1130	983	782
Zinc	ppm	1197	1248	1185	921
Phosphorus	ppm	969	1097	1047	802
Barium	ppm	<1	0	1	19
Boron	ppm	3	27	4	63

Depot: DEL782MON
 Unique No: 5657556
 Signed: Kevin Marson
 Report Date: 12 Oct 2023



GRAPHS

