

LIEBHERR

CONSTRUCTION EQUIPMENT



[(365442)] 136520-1215 - Diesel Engine

Sample No: LH0277535

Oil Type: PETRO CANADA 10W40



SAMPLE INFORMATION

Sample Number	LH0277535	LH0274671	LH0261314	LH0224570
Sample Date	07 Dec 2023	10 Aug 2023	03 May 2023	14 Nov 2022
Machine Hours	2601	2050	1598	4575
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

American Iron and Metal
706 Lorne Avenue E
Stratford, ON
CA N5A 6S5
Contact: Service Manager



OIL CONDITION

Visc @ 100°C	cSt	13.1	13.6	12.7	11.6
Oxidation (PA)	%	67	61	70	96

T:
F:



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	73	63	72	83
Sulfation (PA)	%	53	54	56	66
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	6	7	7
Sodium	ppm	2	2	2	8
Potassium	ppm	0	<1	0	6

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	3	3	4	5
Copper	ppm	4	6	52	270
Lead	ppm	1	<1	2	7
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	<1	1	1	2
Chromium	ppm	0	<1	0	<1
Molybdenum	ppm	60	58	59	55
Nickel	ppm	<1	0	0	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	1060	1037	1077	897
Magnesium	ppm	979	983	962	1078
Zinc	ppm	1215	1218	1151	1162
Phosphorus	ppm	991	1077	1009	1023
Barium	ppm	<1	<1	<1	3
Boron	ppm	1	1	3	32

Depot: AIMSTR
Unique No: 5694880
Signed: Kevin Marson
Report Date: 08 Dec 2023



GRAPHS

