

LIEBHERR

CONSTRUCTION EQUIPMENT



045705-1491 - Diesel Engine

Sample No: LH0265685

Oil Type: PETRO CANADA 10W40



SAMPLE INFORMATION

Sample Number	LH0265685	LH0186920	LH0192642	LH0215198
Sample Date	01 Aug 2023	02 Dec 2022	24 May 2022	07 Dec 2021
Machine Hours	4919	3979	3424	2976
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

American Iron and Metal

1273 Kelly Lake Rd.

Sudbury, ON

CA P3E 5P5

Contact: Service Manager



OIL CONDITION

Visc @ 100°C	cSt	11.5	11.4	12.1	13.0
Oxidation (PA)	%	76	86	30	25

T:

F:



CONTAMINATION

Soot %	%	0	0	0	0
Nitration (PA)	%	78	87	36	30
Sulfation (PA)	%	57	63	35	36
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	2	<1.0	<1.0	<1.0
Silicon	ppm	5	8	6	5
Sodium	ppm	4	5	4	2
Potassium	ppm	1	3	2	7

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	4	10	6	6
Copper	ppm	1	3	2	2
Lead	ppm	<1	<1	<1	<1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	2	2	2	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	59	60	53	39
Nickel	ppm	0	<1	0	<1
Titanium	ppm	0	<1	<1	0
Silver	ppm	<1	0	<1	<1
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	792	915	1021	1488
Magnesium	ppm	1099	1172	1029	658
Zinc	ppm	1173	1291	1227	1227
Phosphorus	ppm	1032	1168	1082	1063
Barium	ppm	0	0	0	<1
Boron	ppm	27	26	36	34

Depot: AIMSUD

Unique No: 5618627

Signed: Kevin Marson

Report Date: 03 Aug 2023

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GRAPHS

