

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR HS895 188244 - Diesel Engine

Sample No: LH0289546

Oil Type: PETRO CANADA 10W40



#### Sample Information

Sample Number	LH0289546	LH0278947	LH0281367	LH0276123
Sample Date	10 May 2024	06 Jan 2024	21 Dec 2023	05 Sep 2023
Machine Hours	21278	20588	20240	19868
Oil Hours	0	0	0	0
Oil Changed	Changed	N/A	N/A	N/A
Sample Status	NORMAL	NORMAL	ABNORMAL	NORMAL

HIGGS & HIGGS

RR # 4

ST THOMAS, ON

CA N5P 3S8

Contact: Bernie Higgs



#### Oil Condition

Visc @ 100°C	cSt	14.3	13.8	15.3	13.9
Oxidation (PA)	%	73	73	99	70

T: (519)631-4095

F: (519)631-2745



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.1	0.6	0.2
Nitration (PA)	%	76	72	95	69
Sulfation (PA)	%	60	60	71	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	3	5	4	4
Sodium	ppm	2	2	2	2
Potassium	ppm	<1	<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	16	15	38	15
Copper	ppm	4	4	125	9
Lead	ppm	3	2	4	2
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	3	4	3	4
Chromium	ppm	<1	<1	1	1
Molybdenum	ppm	66	66	74	66
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	0	0	<1
Vanadium	ppm	0	0	0	0



#### Additives

Calcium	ppm	1252	1421	1336	1202
Magnesium	ppm	1089	955	1211	1097
Zinc	ppm	1389	1354	1484	1348
Phosphorus	ppm	1099	1133	1149	1145
Barium	ppm	<1	0	0	0
Boron	ppm	4	47	4	4

Depot: HIGSTT

Unique No: 5801648

Signed: Wes Davis

Report Date: 26 Jun 2024



### Graphs

