

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R936LC 048600-1490 - Diesel Engine

Sample No: LH0265581

Oil Type: PETRO CANADA SUPREME 10W40 MOTOR OIL



SAMPLE INFORMATION

Sample Number	LH0265581	LH0186314	LH0177989	LH0162703
Sample Date	06 Sep 2023	11 Jun 2021	23 Oct 2020	31 Jan 2020
Machine Hours	2493	1641	1027	501
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Not Changd
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

COLOURED AGGREGATES INC.
 158 DON HILLOCK DRIVE,, UNIT 12-13
 AURORA, ON
 CA L4G 0H6
 Contact: Jeff Oravec
 Jeff@colouredaggregates.com
 T: (416)491-0230
 F:



OIL CONDITION

Visc @ 100°C	cSt	12.0	11.9	12.1	12.5
Oxidation (PA)	%	69	91	164	153



CONTAMINATION

Soot %	%	0	0	0	0
Nitration (PA)	%	68	80	83	78
Sulfation (PA)	%	53	66	96	100
Glycol	%	NEG	NEG	0.0	NEG
Fuel	%	1	<1.0	0.4	<1.0
Silicon	ppm	7	8	8	7
Sodium	ppm	4	4	4	2
Potassium	ppm	<1	<1	2	2



WEAR METALS

Iron	ppm	4	8	17	11
Copper	ppm	3	63	271	212
Lead	ppm	<1	2	9	6
Tin	ppm	0	<1	1	<1
Aluminum	ppm	<1	2	2	2
Chromium	ppm	<1	<1	1	<1
Molybdenum	ppm	60	53	50	46
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	928	1142	1452	1440
Magnesium	ppm	1025	999	776	751
Zinc	ppm	1213	1284	991	963
Phosphorus	ppm	1088	990	752	785
Barium	ppm	<1	6	37	33
Boron	ppm	45	33	48	70

Diagnosis

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time. The fluid was specified as PETRO CANADA SUPREME 10W40 MOTOR OIL, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Depot: COL158AUR
 Unique No: 5643476
 Signed: Kevin Marson
 Report Date: 15 Sep 2023



GRAPHS

