

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R934 036784 - Right Planetary

Sample No: LH0070663

Oil Type: CHEVRON DELO GEAR ESI OIL 80W90



SAMPLE INFORMATION

Sample Number	LH0070663	---	---	---
Sample Date	25 Oct 2013	---	---	---
Machine Hours	477	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ATTENTION	---	---	---

LIEBHERR CANADA LTD.

10374 267 ST.
ACHESON, AB
CA T7X 6A2
Contact: Rodney Budzak
rodney.budzak@liebherr.com
T: (780)962-6799
F: (780)962-6799



OIL CONDITION

Visc @ 40°C	cSt	● 137	---	---	---
-------------	-----	-------	-----	-----	-----



CONTAMINATION

Silicon	ppm	● 14	---	---	---
Sodium	ppm	● 6	---	---	---
Potassium	ppm	● 8	---	---	---



WEAR METALS

Iron	ppm	● 155	---	---	---
Copper	ppm	● 25	---	---	---
Lead	ppm	● <1	---	---	---
Tin	ppm	● 2	---	---	---
Aluminum	ppm	● 2	---	---	---
Chromium	ppm	● 4	---	---	---
Molybdenum	ppm	● <1	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	● 3	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	● 34	---	---	---
Magnesium	ppm	● 2	---	---	---
Zinc	ppm	● 116	---	---	---
Phosphorus	ppm	● 1375	---	---	---
Barium	ppm	● 3	---	---	---
Boron	ppm	● 2	---	---	---

Diagnosis

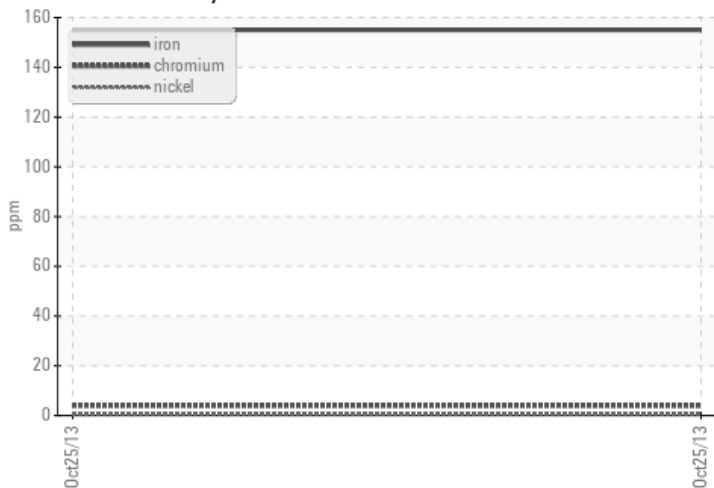
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Depot: LIESPR
Unique No: 3827160
Signed: Kevin Marson
Report Date: 12 Nov 2013

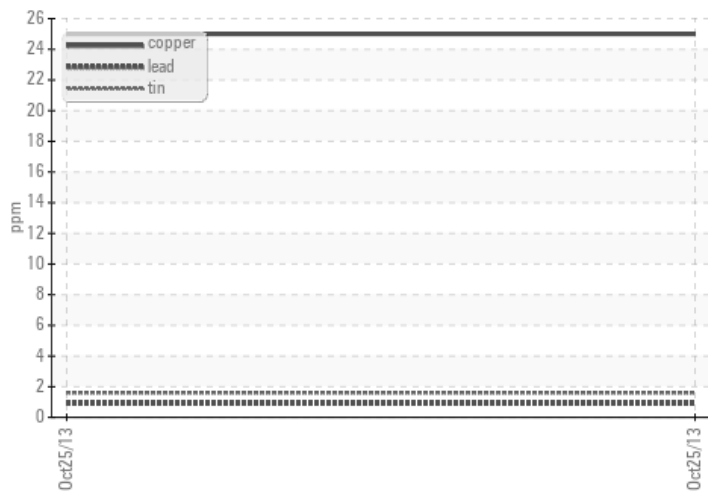


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

