

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A924C064062-1049 - Hydraulic System

Sample No: LH0274064

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL



MARCEL DUVAL FER ET METAUX INC.
661 RANG STE-MARIE
ST. SEBASTIEN, QC
CA J0J 2C0
Contact: Service Manager



SAMPLE INFORMATION

Sample Number	LH0274064	LH0261033	LH	LH0177708
Sample Date	26 Oct 2023	14 Jun 2023	06 Aug 2021	08 Jan 2021
Machine Hours	13784	13298	11114	10412
Oil Hours	0	0	0	0
Oil Changed	Not Changd	N/A	N/A	Not Changd
Sample Status	NORMAL	ATTENTION	NORMAL	NORMAL



OIL CONDITION

Visc @ 40°C	cSt	36.3	37.0	39.7	40.8
Visc @ 100°C	cSt	6.8	---	---	---
Viscosity Index (VI)	Scale	148	---	---	---

T:
F:



CONTAMINATION

Particles >4µm		3827	29313	6848	1505
Particles >6µm		1117	4801	1820	372
Particles >14µm		64	255	135	23
ISO 4406:1999 (c)		19/17/13	22/19/15	20/18/14	18/16/12
Silicon	ppm	2	2	1	2
Sodium	ppm	2	1	1	3
Potassium	ppm	<1	<1	<1	1

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The oil viscosity is lower than typical, possibly indicating the addition of lighter grade oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	27	26	25	27
Copper	ppm	9	9	8	8
Lead	ppm	<1	<1	1	1
Tin	ppm	0	0	<1	0
Aluminum	ppm	<1	<1	<1	<1
Chromium	ppm	4	4	4	4
Molybdenum	ppm	0	<1	<1	<1
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	0	<1	<1	<1
Silver	ppm	<1	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

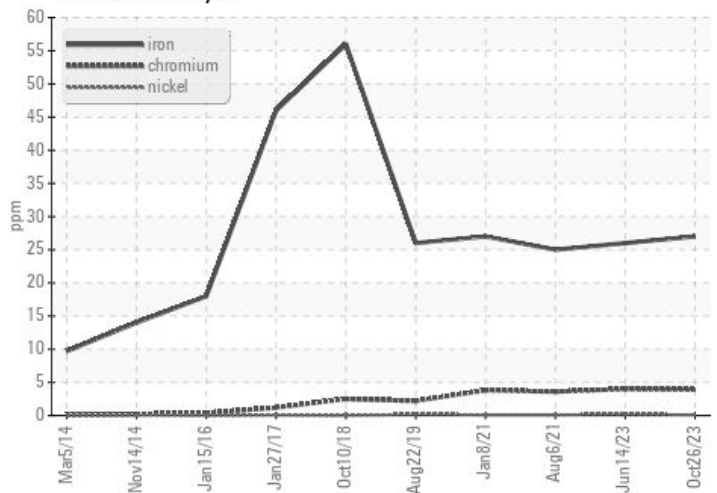
Calcium	ppm	258	262	349	404
Magnesium	ppm	3	3	3	3
Zinc	ppm	562	563	637	655
Phosphorus	ppm	439	481	547	500
Barium	ppm	<1	0	0	0
Boron	ppm	<1	<1	<1	<1

Depot: MARSTS
Unique No: 5669763
Signed: Kevin Marson
Report Date: 31 Oct 2023

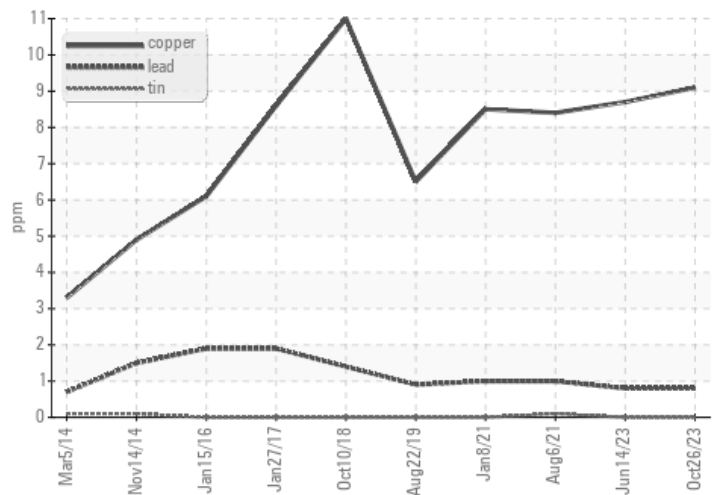


GRAPHS

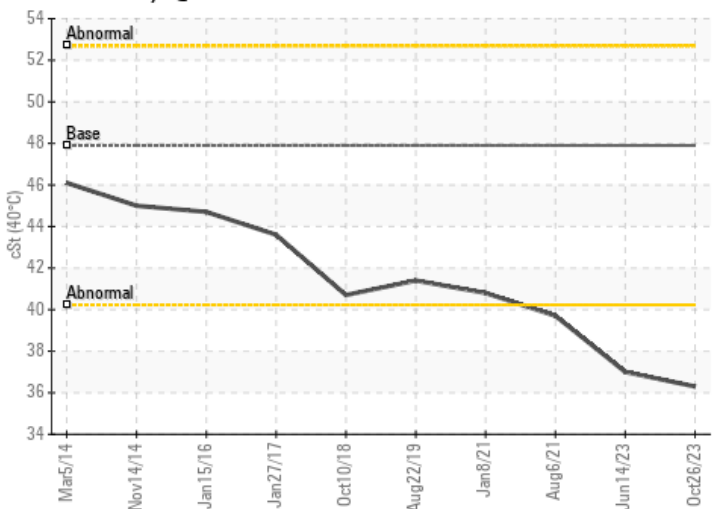
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

