



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH22M 136874-1250

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)

RECOMMENDATION

Nous avons pris note que le filtre a été remplacé au moment de l'échantillonnage. Confirm the source of the lubricant being utilized for top-up/fill. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH	LH0249964	---
Sample Date		Client Info		05 Jan 2024	25 Jan 2023	---
Machine Age	hrs	Client Info		1000	500	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Chngd	Changed	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

Les taux d'usure de tous les composants sont normaux.

Iron	ppm	ASTM D5185(m)	>60	29	22	---
Chromium	ppm	ASTM D5185(m)	>40	1	<1	---
Nickel	ppm	ASTM D5185(m)	>10	<1	0	---
Titanium	ppm	ASTM D5185(m)		0	<1	---
Silver	ppm	ASTM D5185(m)		<1	0	---
Aluminum	ppm	ASTM D5185(m)	>5	2	1	---
Lead	ppm	ASTM D5185(m)	>5	2	1	---
Copper	ppm	ASTM D5185(m)	>15	10	5	---
Tin	ppm	ASTM D5185(m)	>5	0	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	VLITE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

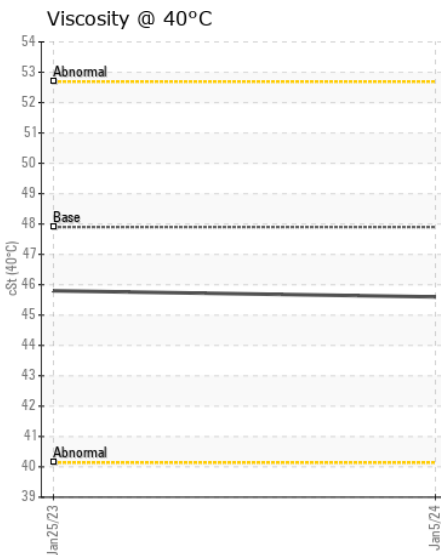
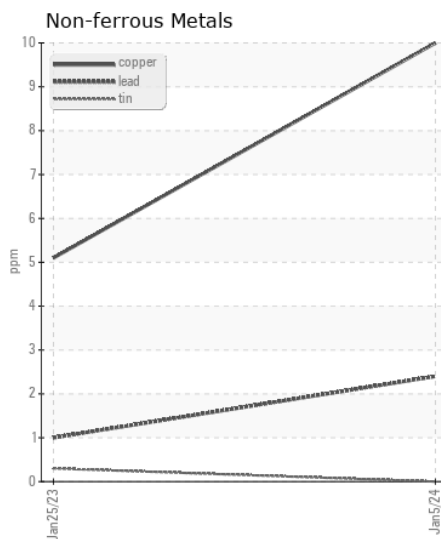
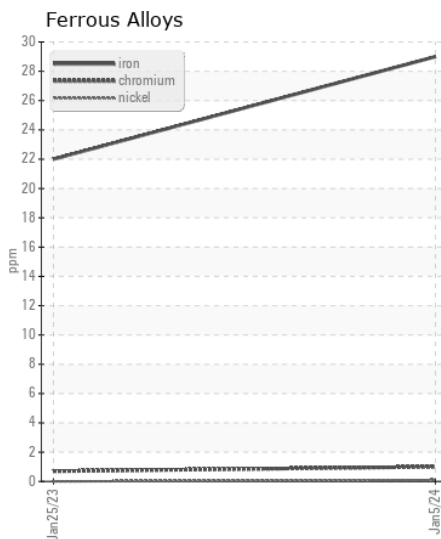
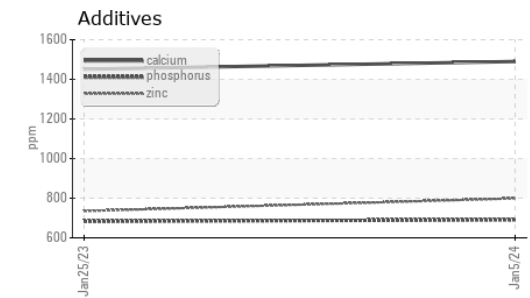
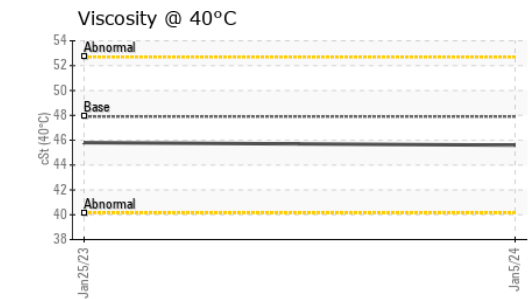
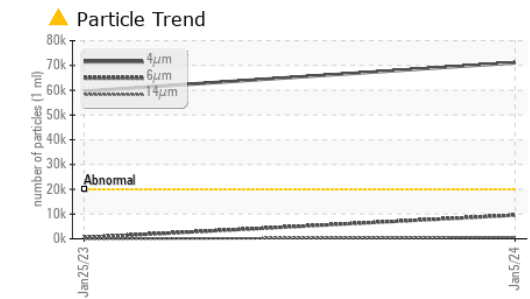
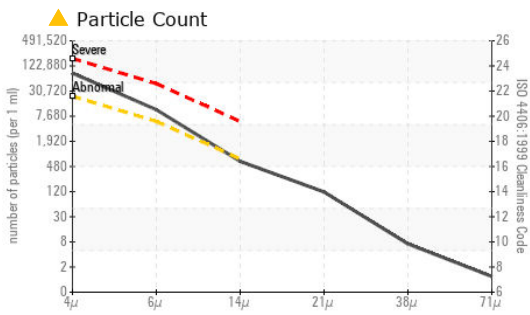
Il y a une quantité modérée de particules (de 4 à 14 microns) dans l'huile.

Silicon	ppm	ASTM D5185(m)	>15	6	4	---
Potassium	ppm	ASTM D5185(m)	>20	4	2	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>20000	▲ 71117	▲ 59642	---
Particles >6µm		ASTM D7647	>5000	▲ 9545	525	---
Particles >14µm		ASTM D7647	>640	560	7	---
Particles >21µm		ASTM D7647	>160	104	2	---
Particles >38µm		ASTM D7647	>40	6	0	---
Particles >71µm		ASTM D7647	>10	1	0	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 23/20/16	▲ 23/16/10	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.1	NEG	▲ .2%	---

FLUID CONDITION

Les niveaux d'additifs indiquent l'ajout d'une autre marque ou d'un autre type d'huile. L'huile peut encore servir si la contamination peut être réduite à un niveau acceptable.

Sodium	ppm	ASTM D5185(m)		6	2	---
Boron	ppm	ASTM D5185(m)	0	4	<1	---
Barium	ppm	ASTM D5185(m)	0	<1	<1	---
Molybdenum	ppm	ASTM D5185(m)	0	0	0	---
Manganese	ppm	ASTM D5185(m)	1	<1	<1	---
Magnesium	ppm	ASTM D5185(m)	0	8	6	---
Calcium	ppm	ASTM D5185(m)	100	1490	1451	---
Phosphorus	ppm	ASTM D5185(m)	670	691	683	---
Zinc	ppm	ASTM D5185(m)	850	799	735	---
Sulfur	ppm	ASTM D5185(m)	1600	4350	4422	---
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	45.6	45.8	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 LA REGIE DES MATIERES RESIDUELLES DU LAC ST-JEAN
Sample No. : LH **Received** : 12 Jan 2024 625 RUE BERGERON OUEST
Lab Number : 02608577 **Diagnosed** : 15 Jan 2024 ALMA, QC
Unique Number : 5709663 **Diagnostician** : Kevin Marson CA G8B 1V3
Test Package : MOB 1 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, PrtCount, PrtFilter) Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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