



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH80M 122402-1218

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX AW 22 (--- GAL)

RECOMMENDATION

Vérifier les scelles et/ou les filtres pour des points d'entrée des contaminants. Nous vous recommandons de vérifier la source de l'infiltration d'eau. Nous vous recommandons de vidanger l'huile de ce composant si vous ne l'avez pas déjà fait. Nous recommandons le remplacement des filtres de ce composant. 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		LH0279417	LH0274206	LH0269936
Sample Date		Client Info		23 Dec 2023	21 Oct 2023	19 Aug 2023
Machine Age	hrs	Client Info		9463	8989	8585
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

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

Iron	ppm	ASTM D5185(m)	>60	13	14	14
Chromium	ppm	ASTM D5185(m)	>40	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>10	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>5	1	<1	1
Lead	ppm	ASTM D5185(m)	>5	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>15	3	3	2
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

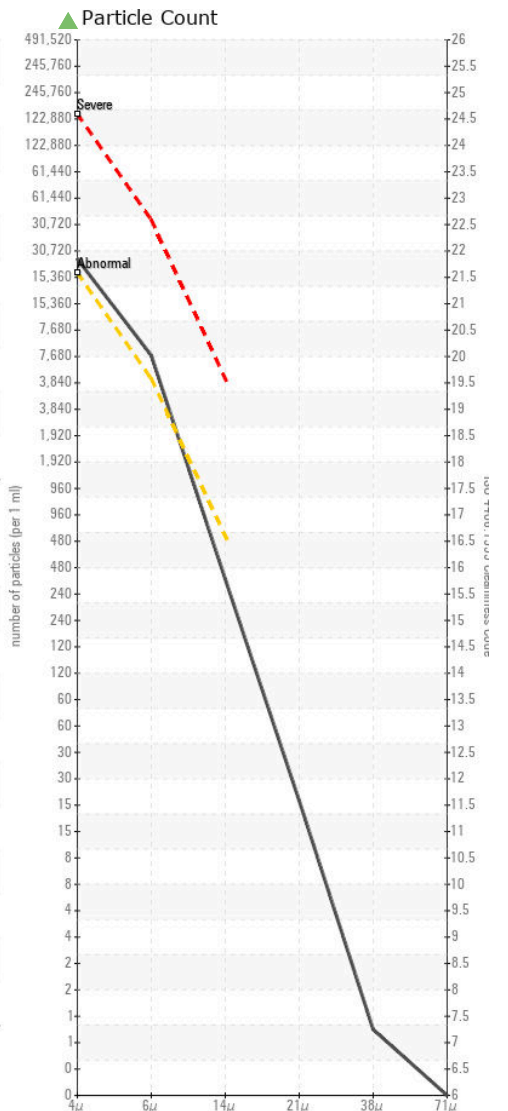
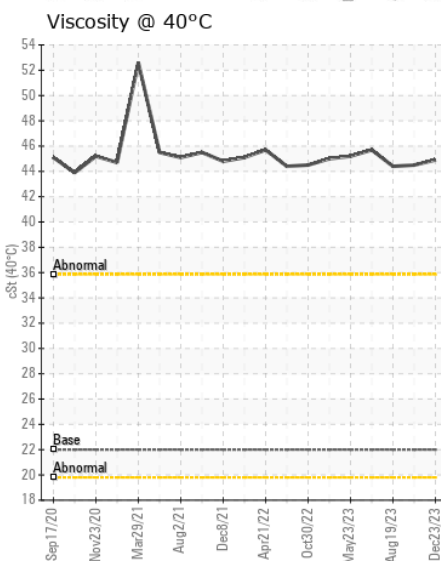
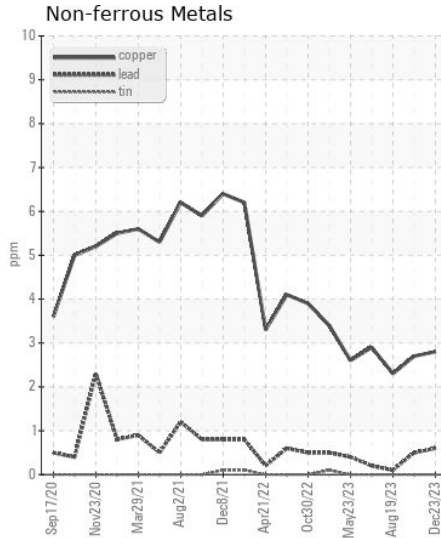
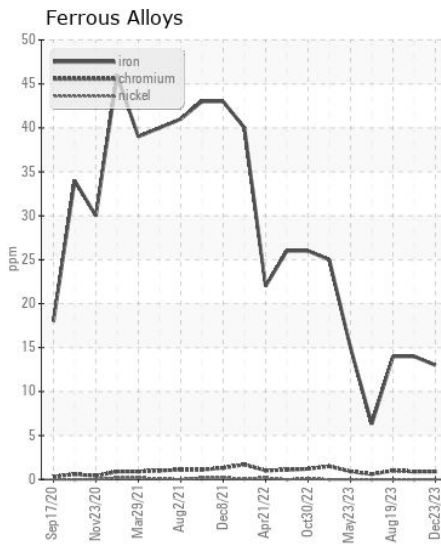
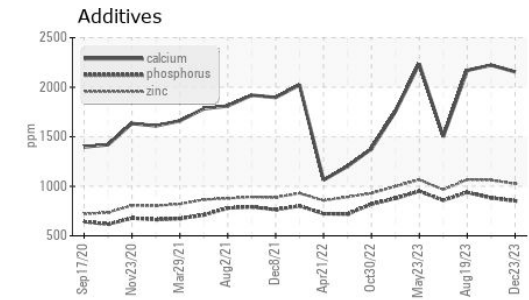
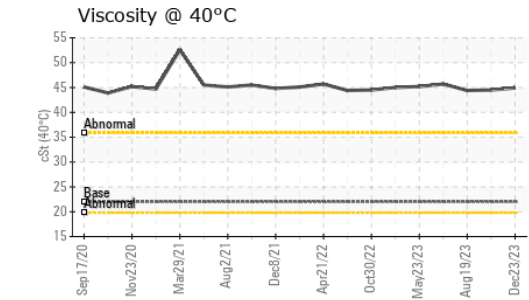
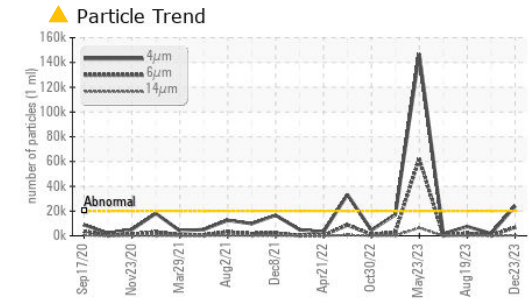
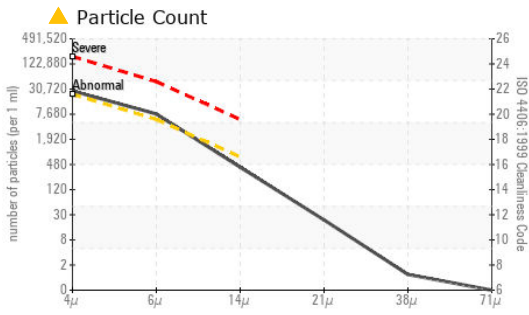
Il y a une légère quantité de limon (particules de 4 à 14 microns) dans l'huile. Présence d'eau libre.

Silicon	ppm	ASTM D5185(m)	>15	5	5	5
Potassium	ppm	ASTM D5185(m)	>20	1	4	1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	▲ 23940	1844	7515
Particles >6µm		ASTM D7647	>5000	▲ 6782	437	2154
Particles >14µm		ASTM D7647	>640	363	21	168
Particles >21µm		ASTM D7647	>160	20	4	41
Particles >38µm		ASTM D7647	>40	1	1	2
Particles >71µm		ASTM D7647	>10	0	1	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 22/20/16	18/16/12	20/18/15
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	▲ WGOIL	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	.2%	NEG	NEG

FLUID CONDITION

Les niveaux d'additifs indiquent l'ajout d'une autre marque ou d'un autre type d'huile. La viscosité de l'échantillon se situe dans la portée de l'ISO 46; nous vous conseillons de vérifier. l'huile ne peut plus être utilisée en raison de la présence de contaminants.

Sodium	ppm	ASTM D5185(m)		2	4	2
Boron	ppm	ASTM D5185(m)	0	2	3	3
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	0	<1	<1	1
Manganese	ppm	ASTM D5185(m)	1	0	0	<1
Magnesium	ppm	ASTM D5185(m)	0	21	22	22
Calcium	ppm	ASTM D5185(m)	50	2155	2223	2170
Phosphorus	ppm	ASTM D5185(m)	330	852	883	939
Zinc	ppm	ASTM D5185(m)	430	1026	1062	1067
Sulfur	ppm	ASTM D5185(m)	760	3310	3365	3365
Visc @ 40°C	cSt	ASTM D7279(m)	22.0	44.9	44.5	44.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 ARCELORMITTAL LONG PRODUITS CANADA
Sample No. : LH0279417 **Received** : 10 Jan 2024 3185 ROUTE MARIE-VICTORIN
Lab Number : 02607860 **Diagnosed** : 12 Jan 2024 CONTRECOEUR, QC
Unique Number : 5708946 **Diagnostician** : Kevin Marson CA J0L 1C0
Test Package : MOB 1 (Additional Tests: PrtCount) Contact: Danny Drouin
 danny.drouin@arcelormittal.com

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.