



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR HS8100 184947
Component
1 Winch
Fluid
PETRO CANADA TRAXON SYNTHETIC 75W90 (27 LTR)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0296499	LH0235035	LH0133633
Sample Date		Client Info		01 Jul 2024	08 Jul 2022	12 Oct 2018
Machine Age	hrs	Client Info		0	11198	2504
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>150	37	1	59
Chromium	ppm	ASTM D5185(m)	>10	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>10	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>5	<1	0	<1
Lead	ppm	ASTM D5185(m)	>15	0	0	<1
Copper	ppm	ASTM D5185(m)	>80	9	<1	4
Tin	ppm	ASTM D5185(m)		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

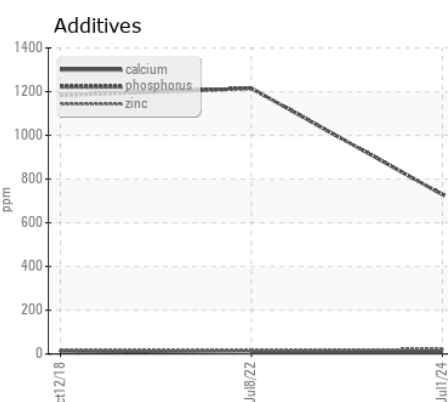
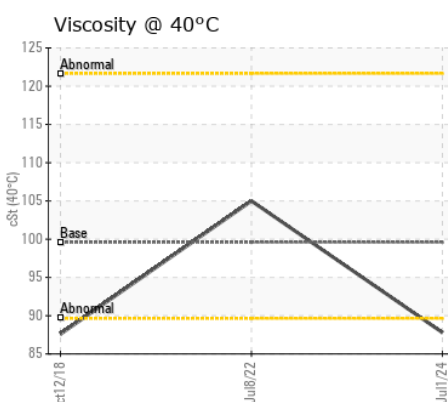
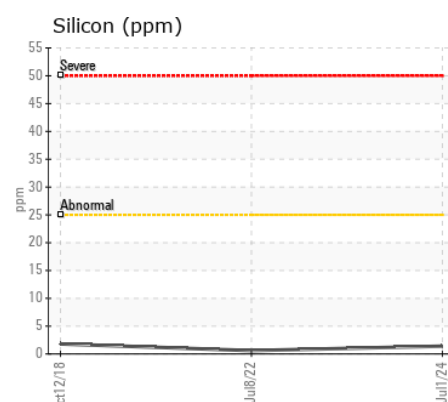
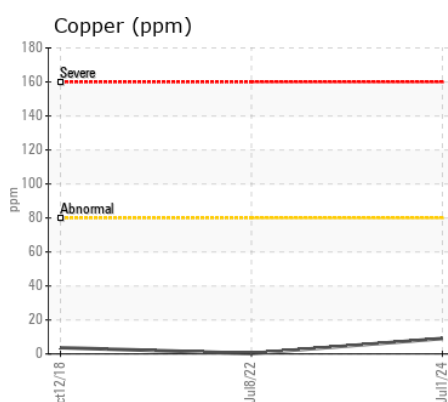
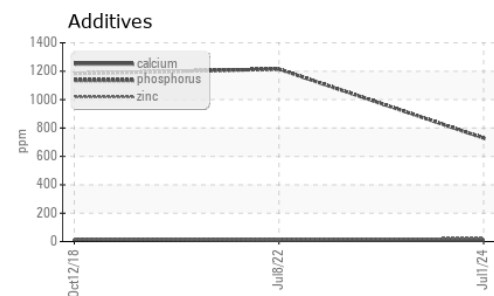
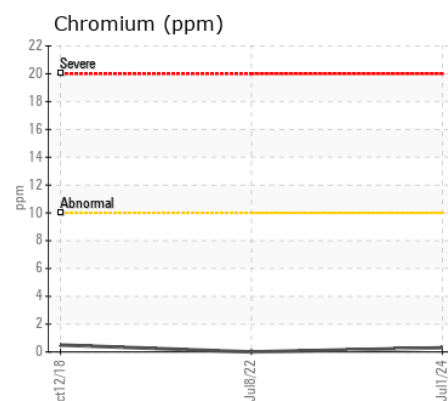
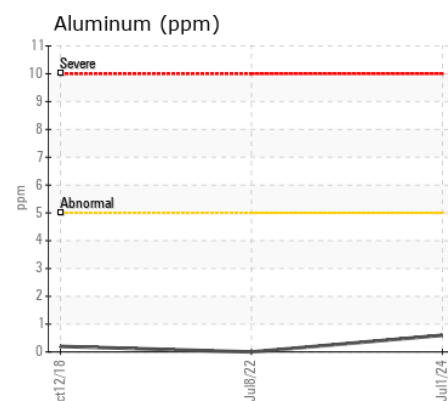
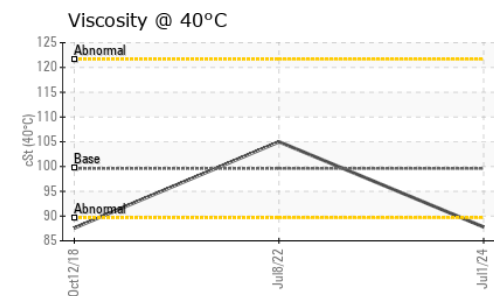
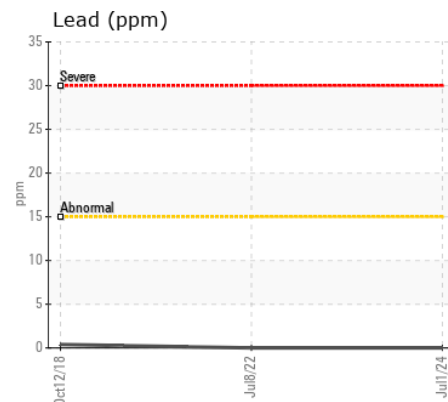
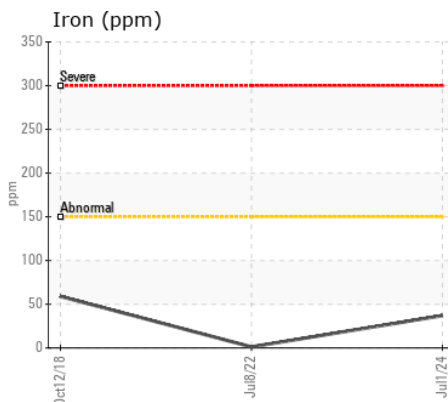
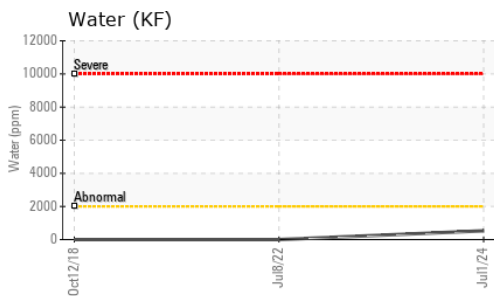
The water content is negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	1	<1	2
Potassium	ppm	ASTM D5185(m)	>20	<1	0	1
Water	%	ASTM D6304*	>0.2	0.053	---	---
ppm Water	ppm	ASTM D6304*	>2000	531	---	---
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	NONE	▲ MODER
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	.2%	NEG	NEG

FLUID CONDITION

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.

Sodium	ppm	ASTM D5185(m)		1	<1	<1
Boron	ppm	ASTM D5185(m)	328	48	294	277
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	<1
Manganese	ppm	ASTM D5185(m)		<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1	2	1	4
Calcium	ppm	ASTM D5185(m)	7	9	9	14
Phosphorus	ppm	ASTM D5185(m)	1145	729	1215	1184
Zinc	ppm	ASTM D5185(m)	3	22	15	18
Sulfur	ppm	ASTM D5185(m)	17909	19558	20664	20792
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	87.8	105	87.6



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0296499 **Received** : 02 Jul 2024
Lab Number : 02644950 **Tested** : 03 Jul 2024
Unique Number : 5802489 **Diagnosed** : 03 Jul 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: KF)

HIGGS & HIGGS
 RR # 4
 ST THOMAS, ON
 CA N5P 3S8
 Contact: Bernie Higgs

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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