



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR HS895 188297**

Component  
**1 Winch**

Fluid  
**PETRO CANADA TRAXON 75W90 SYNTHETIC (--- LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0295141</b>	LH0260277	LH0195191
Sample Date		Client Info		<b>10 Jun 2024</b>	02 May 2023	18 Mar 2021
Machine Age	hrs	Client Info		<b>16385</b>	13473	6156
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>150	<b>2</b>	34	24
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>80	<b>&lt;1</b>	3	1
Tin	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

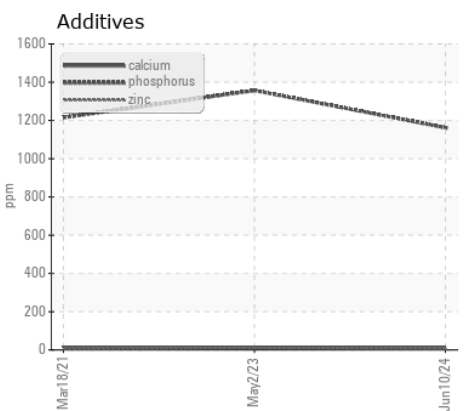
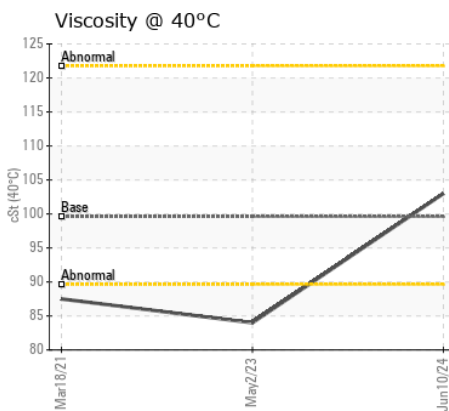
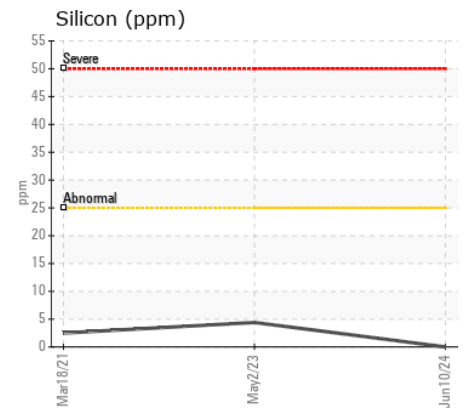
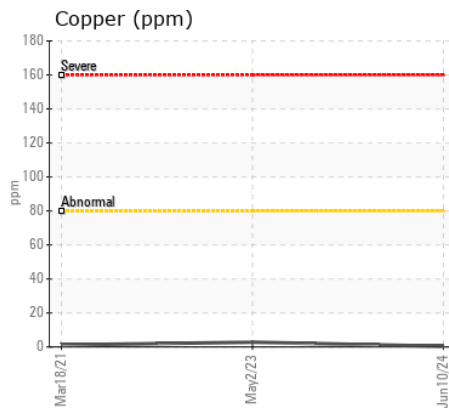
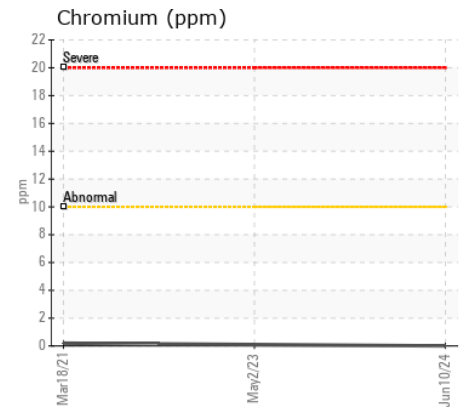
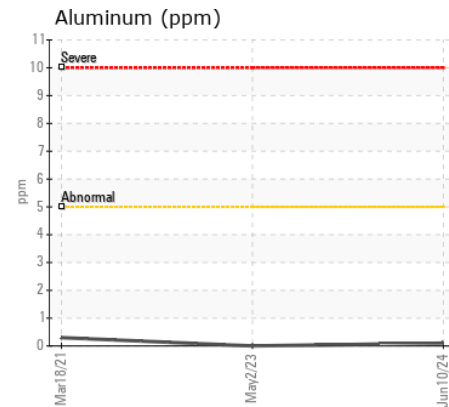
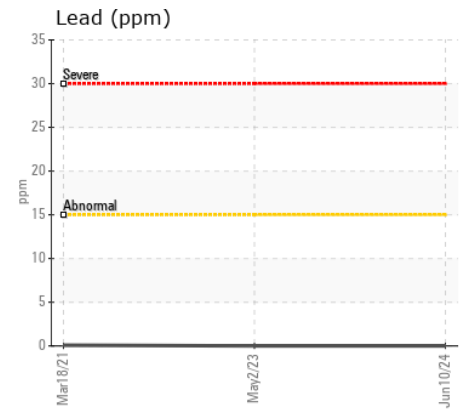
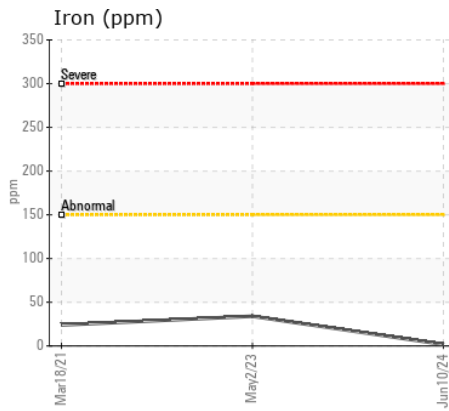
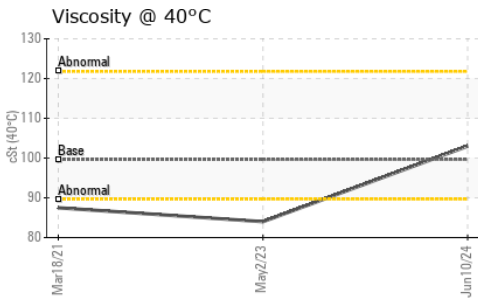
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>0</b>	4	2
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>VLITE</b>	NONE	VLITE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Boron	ppm	ASTM D5185(m)	328	<b>291</b>	313	312
Barium	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	7	3
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1	<b>1</b>	4	2
Calcium	ppm	ASTM D5185(m)	7	<b>9</b>	13	10
Phosphorus	ppm	ASTM D5185(m)	1145	<b>1162</b>	1357	1215
Zinc	ppm	ASTM D5185(m)	3	<b>8</b>	10	7
Sulfur	ppm	ASTM D5185(m)	17909	<b>20392</b>	22168	21920
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	<b>103</b>	84.0	87.5



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0295141  
**Lab Number** : 02644232  
**Unique Number** : 5801771  
**Test Package** : MOB 1  
**Received** : 26 Jun 2024  
**Tested** : 26 Jun 2024  
**Diagnosed** : 26 Jun 2024 - Wes Davis

**Harbour Development**  
 380 Bayside Dr  
 St John, NB  
 CA E2J 4Y8  
 Contact: Darien Edison  
 edison.darien@harbourdev.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.

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F: