



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LB28 115540
Component
Drilling Drive
Fluid
PETRO CANADA TRAXON 75W90 SYNTHETIC (110 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0291206	LH0133568	LH0178452
Sample Date		Client Info		04 May 2024	17 May 2021	05 Nov 2020
Machine Age	hrs	Client Info		12022	10271	9602
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	99	112	42
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>5	3	<1	<1
Lead	ppm	ASTM D5185(m)	>5	0	<1	<1
Copper	ppm	ASTM D5185(m)	>50	<1	12	13
Tin	ppm	ASTM D5185(m)	>5	0	1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	VLITE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

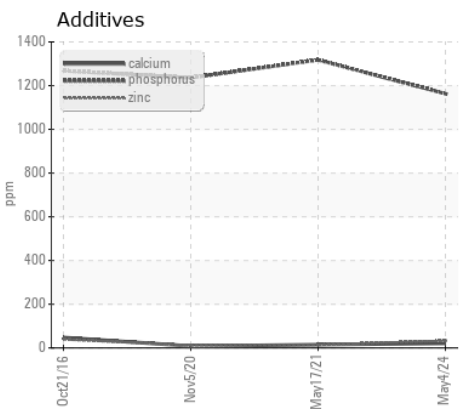
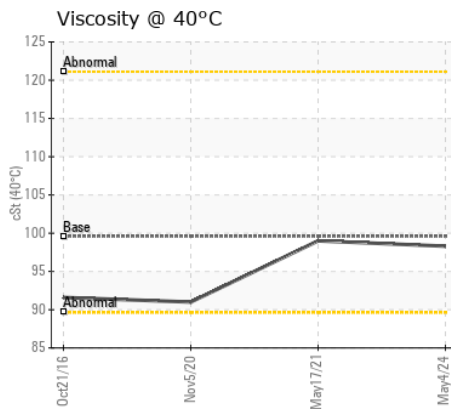
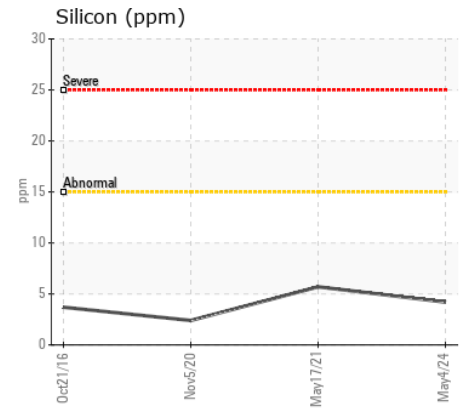
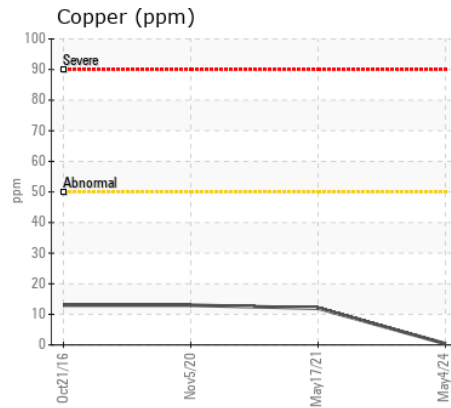
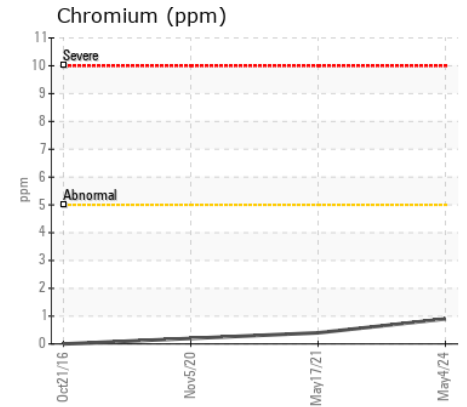
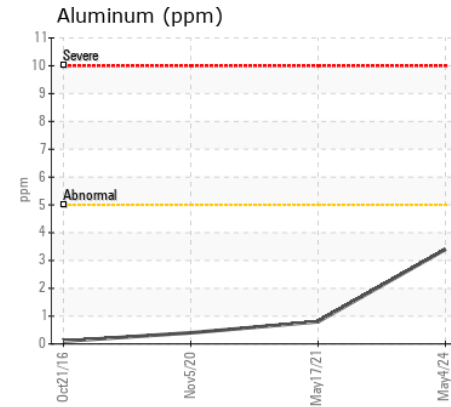
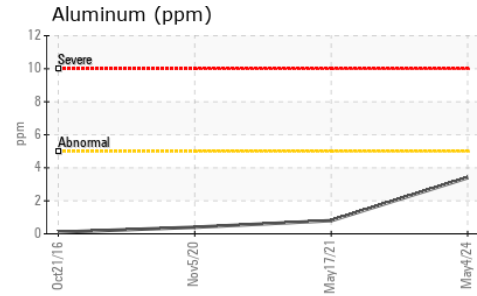
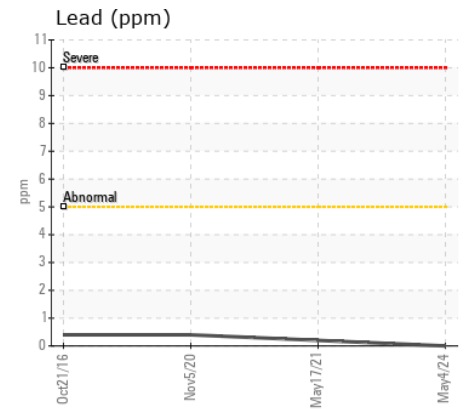
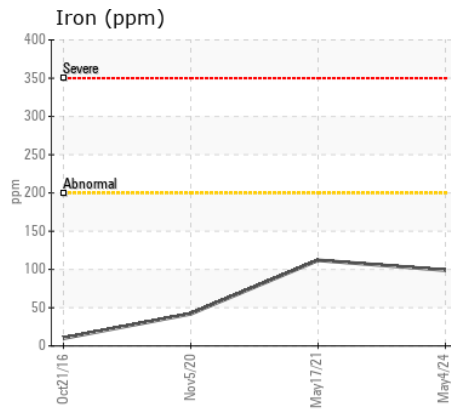
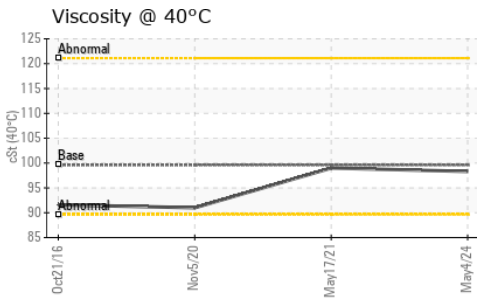
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	4	6	2
Potassium	ppm	ASTM D5185(m)	>20	3	<1	<1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	LIGHT	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
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	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		2	<1	<1
Boron	ppm	ASTM D5185(m)	328	298	330	316
Barium	ppm	ASTM D5185(m)	1	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)		2	<1	<1
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1	3	2	1
Calcium	ppm	ASTM D5185(m)	7	21	15	9
Phosphorus	ppm	ASTM D5185(m)	1145	1163	1318	1236
Zinc	ppm	ASTM D5185(m)	3	33	14	12
Sulfur	ppm	ASTM D5185(m)	17909	19428	21974	21826
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	98.3	99.0	91.0



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0291206
Lab Number : 02633941
Unique Number : 5775094
Test Package : MOB 1
Received : 07 May 2024
Tested : 07 May 2024
Diagnosed : 07 May 2024 - Kevin Marson

Maple Site Solutions Inc.
 766 Old Hespeler Rd.
 Cambridge, ON
 CA N3H 5L8
 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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