



# LIEBHERR

## OIL ANALYSIS REPORT

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



Area

**IRON SHORING**

Machine Id

**100-017**

Component

**Drilling Drive**

Fluid

**PETRO CANADA TRAXON 75W90 SYNTHETIC (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0289416</b>	LH0234710	LH
Sample Date		Client Info		<b>12 Jun 2024</b>	16 Jul 2022	16 Oct 2021
Machine Age	hrs	Client Info		<b>4035</b>	2025	9997
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>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>None</b>	None	None
Sample Status				<b>NORMAL</b>	NORMAL	SEVERE

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	<b>31</b>	32	35
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<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>0</b>	0	<1
Lead	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	0
Copper	ppm	ASTM D5185(m)	>50	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	▲ HEAVY
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

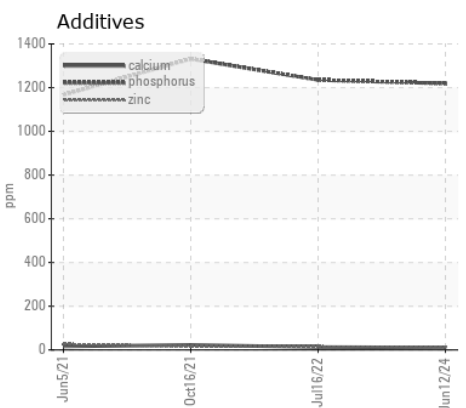
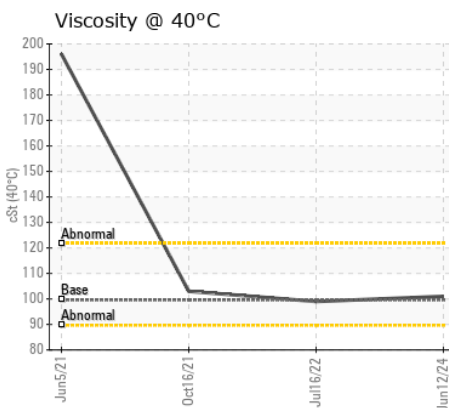
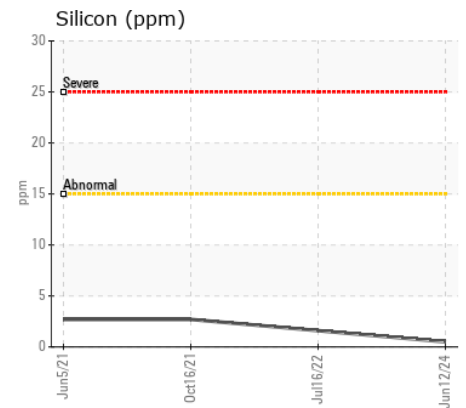
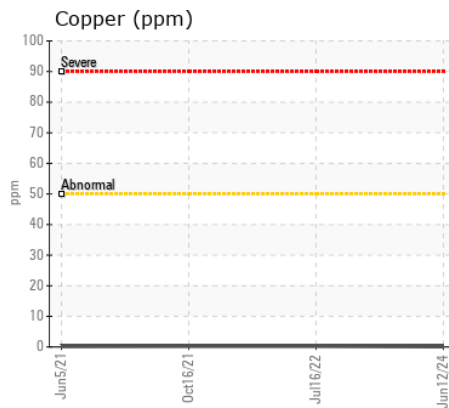
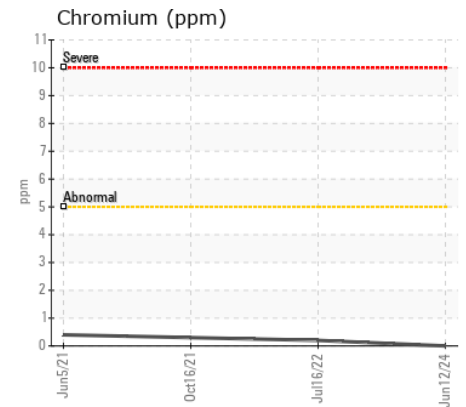
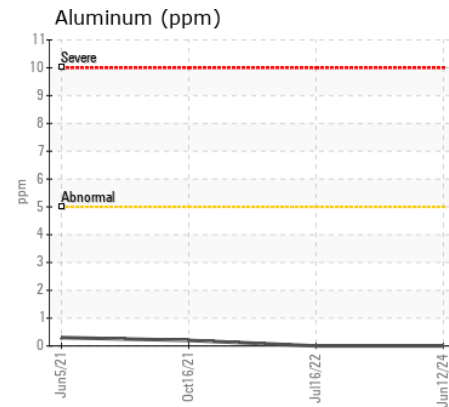
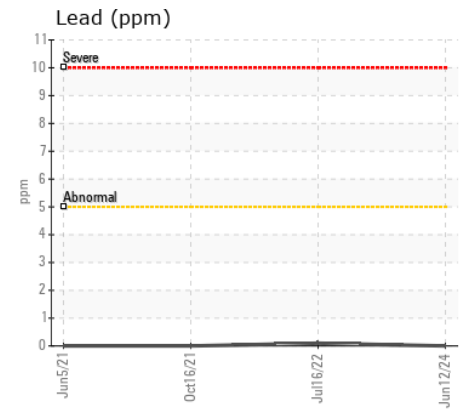
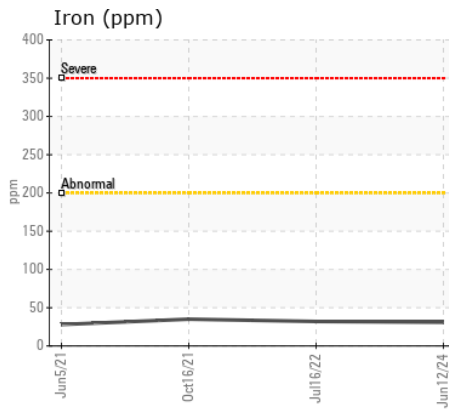
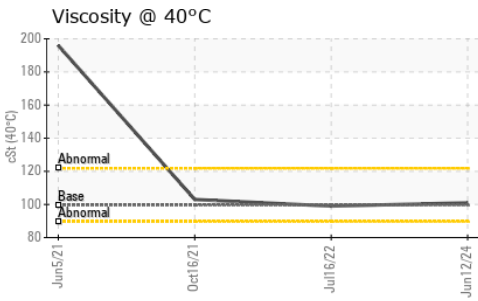
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
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>	LIGHT	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>VLITE</b>	NONE	NONE
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>	.2%	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>313</b>	313	303
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1	<b>2</b>	2	2
Calcium	ppm	ASTM D5185(m)	7	<b>11</b>	13	23
Phosphorus	ppm	ASTM D5185(m)	1145	<b>1219</b>	1235	1332
Zinc	ppm	ASTM D5185(m)	3	<b>13</b>	15	15
Sulfur	ppm	ASTM D5185(m)	17909	<b>20718</b>	21719	22095
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	<b>101</b>	99.0	103



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0289416  
**Lab Number** : 02642055  
**Unique Number** : 5799594  
**Test Package** : MOB 1  
**Received** : 14 Jun 2024  
**Tested** : 14 Jun 2024  
**Diagnosed** : 14 Jun 2024 - Wes Davis

**RONI/IRON SHORE EXCAVATING LTD.**  
 100 MACINTOSH BLVD  
 VAUGHAN, ON  
 CA L4K 4P3  
 Contact: Nathan Fernandes  
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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.