



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**096750-1204**

Component  
**Swing Drive**

Fluid  
**PETRO CANADA TRAXON 75W90 SYNTHETIC (11 LTR)**

### RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0285133</b>	LH0216228	LH0251712
Sample Date		Client Info		<b>05 Feb 2024</b>	02 May 2023	30 Jan 2023
Machine Age	hrs	Client Info		<b>10945</b>	9957	9461
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>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184*		<b>7</b>	---	0
Iron	ppm	ASTM D5185(m)	>350	<b>▲ 612</b>	228	384
Chromium	ppm	ASTM D5185(m)	>15	<b>4</b>	2	3
Nickel	ppm	ASTM D5185(m)	>5	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>10	<b>2</b>	1	1
Copper	ppm	ASTM D5185(m)	>300	<b>79</b>	45	58
Tin	ppm	ASTM D5185(m)	>15	<b>2</b>	2	2
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

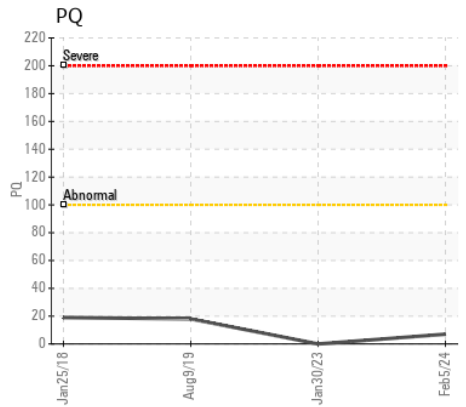
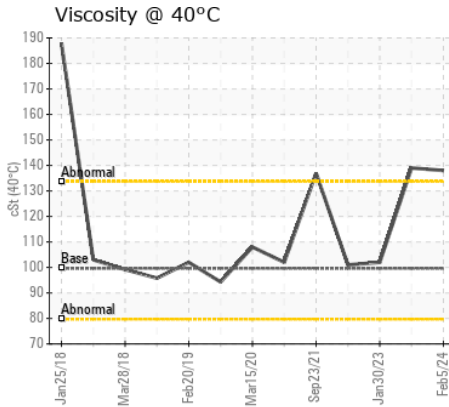
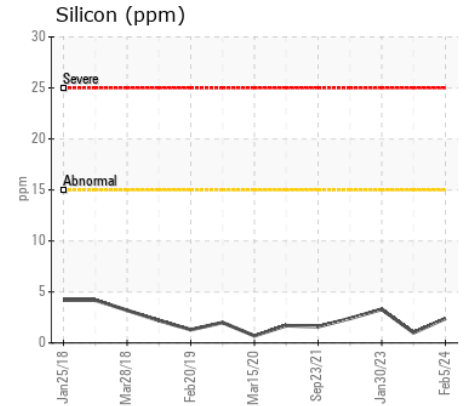
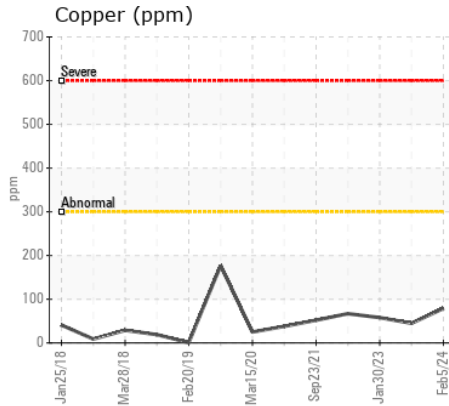
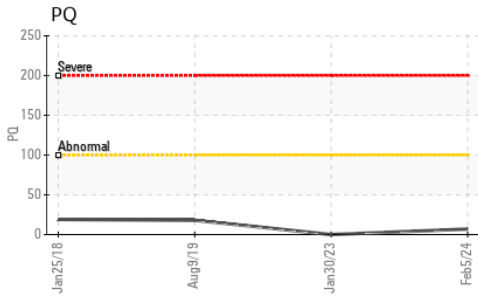
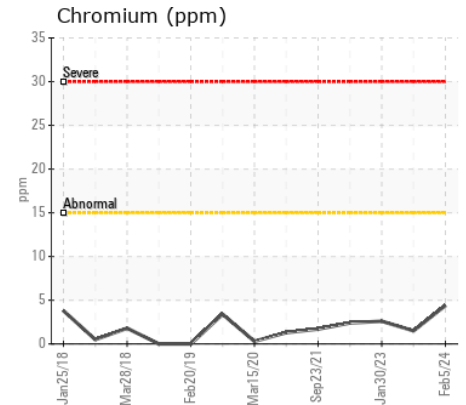
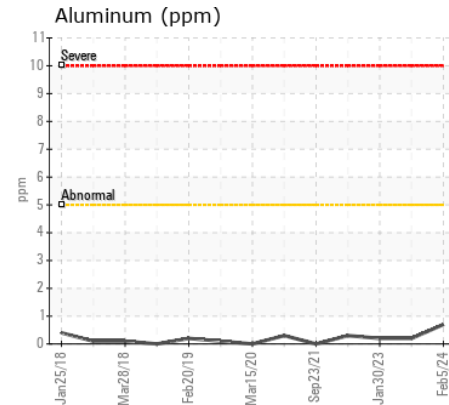
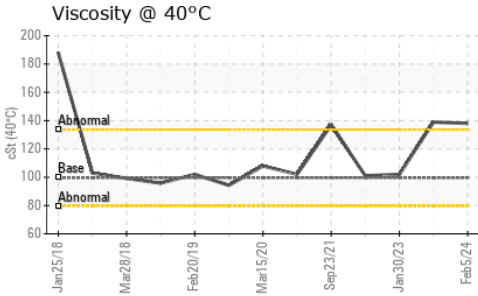
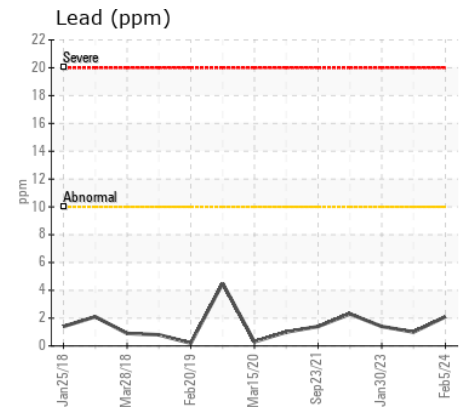
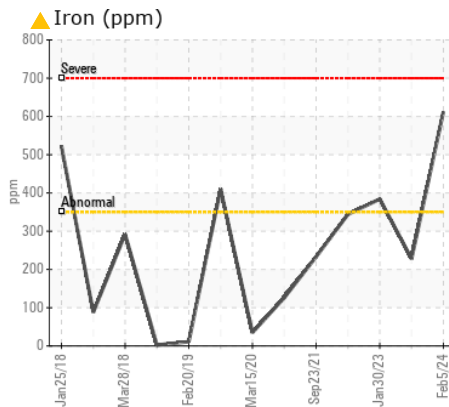
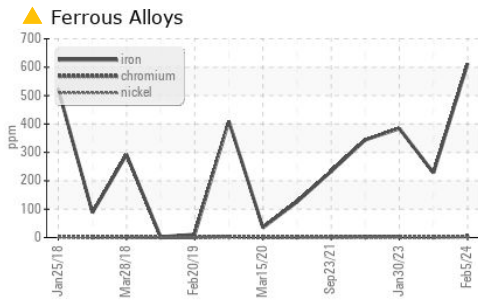
There is no indication of any contamination in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Silicon	ppm	ASTM D5185(m)	>15	<b>2</b>	1	3
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	0	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>NONE</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>	NEG	NEG

### FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sodium	ppm	ASTM D5185(m)		<b>1</b>	2	<1
Boron	ppm	ASTM D5185(m)	328	<b>84</b>	103	212
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>3</b>	1	2
Magnesium	ppm	ASTM D5185(m)	1	<b>4</b>	7	<1
Calcium	ppm	ASTM D5185(m)	7	<b>12</b>	12	9
Phosphorus	ppm	ASTM D5185(m)	1145	<b>1791</b>	2110	1430
Zinc	ppm	ASTM D5185(m)	3	<b>18</b>	18	17
Sulfur	ppm	ASTM D5185(m)	17909	<b>23256</b>	25399	22696
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	<b>138</b>	139	102



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0285133 **Received** : 22 Feb 2024  
**Lab Number** : 02617483 **Tested** : 23 Feb 2024  
**Unique Number** : 5734593 **Diagnosed** : 23 Feb 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: PQ )

**American Iron and Metal**  
 120 Bentley Avenue  
 Ottawa, ON  
 CA K2E 6T9  
 Contact: Yvon Lalonde

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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