



# OIL ANALYSIS REPORT

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

Machine Id  
**TECO WESTING HOUSE PUMP 1003**  
 Component  
**Rotary Compressor**  
 Fluid  
**SHELL MORLINA OIL 150 (13 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0943221</b>	WC0701221	WC0701231
Sample Date		Client Info		<b>28 May 2024</b>	23 Aug 2023	11 May 2022
Machine Age	yrs	Client Info		<b>20</b>	20	0
Oil Age	yrs	Client Info		<b>0</b>	0	0
Filter Age	yrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

PQ		ASTM D8184*		<b>0</b>	0	0
Iron	ppm	ASTM D5185(m)	>70	<b>0</b>	<1	<1
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)		<b>0</b>	0	0
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)	>3	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>3	<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

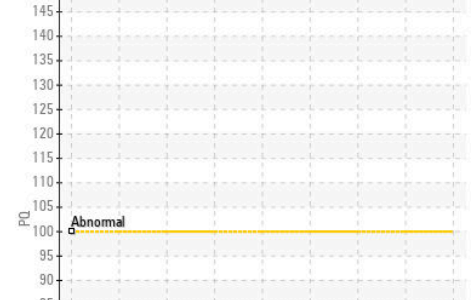
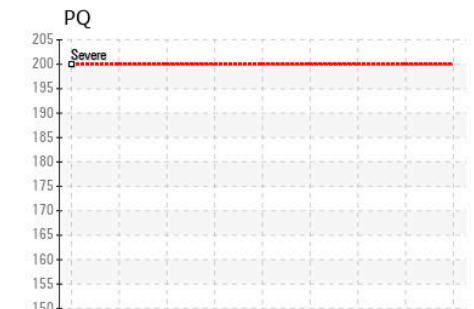
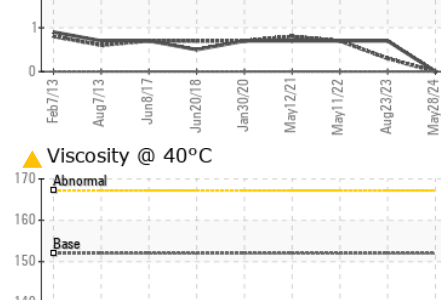
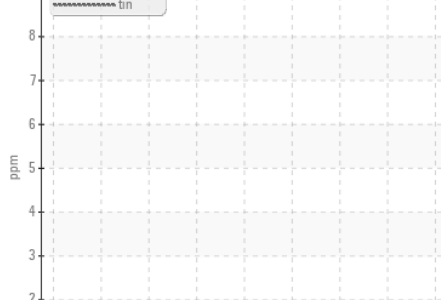
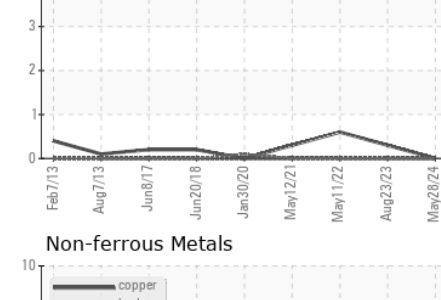
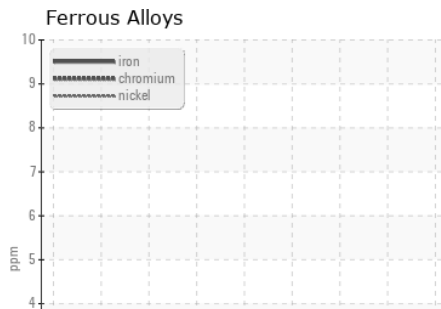
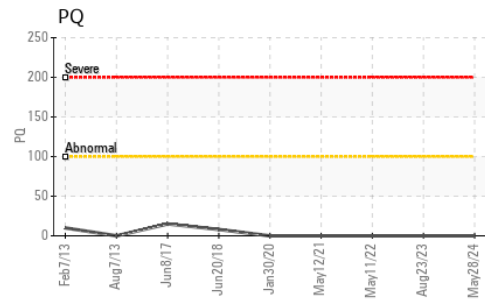
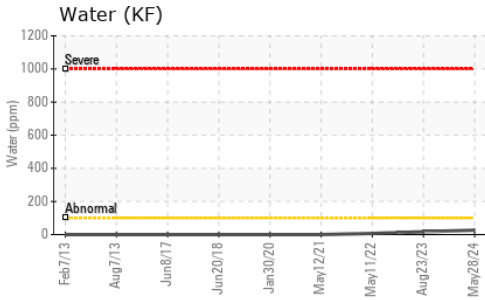
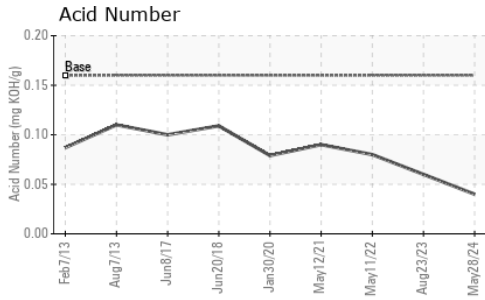
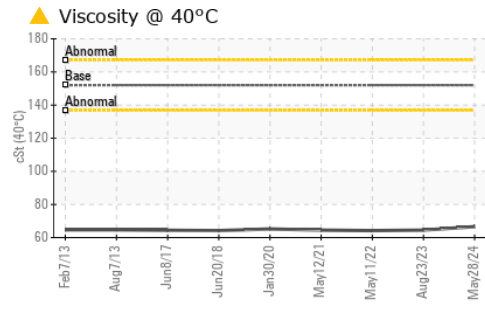
The water content is negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>45	<b>0</b>	0	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Water	%	ASTM D6304*	>0.6	<b>0.003</b>	0.002	0.001
ppm Water	ppm	ASTM D6304*		<b>27</b>	17.1	7.0
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>VLITE</b>	VLITE	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*	>0.6	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

Viscosity of sample indicates oil is within ISO 68 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Boron	ppm	ASTM D5185(m)		<b>0</b>	0	0
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Calcium	ppm	ASTM D5185(m)		<b>3</b>	6	6
Phosphorus	ppm	ASTM D5185(m)		<b>5</b>	67	71
Zinc	ppm	ASTM D5185(m)		<b>10</b>	67	76
Sulfur	ppm	ASTM D5185(m)		<b>108</b>	1450	1590
Acid Number (AN)	mg KOH/g	ASTM D974*	0.16	<b>0.04</b>	0.06	0.08
Visc @ 40°C	cSt	ASTM D7279(m)	152	<b>▲ 66.6</b>	▲ 64.5	▲ 64.2



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0943221 **Received** : 30 May 2024  
**Lab Number** : 02638883 **Tested** : 06 Jun 2024  
**Unique Number** : 5788045 **Diagnosed** : 06 Jun 2024 - Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: BottomAnalysis, FILTERPATCH, KF )

**NATIONAL RESEARCH COUNCIL**  
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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.