



# OIL ANALYSIS REPORT

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

Machine Id  
**016-0114**  
 Component  
**Front Axle**  
 Fluid  
**SCHAEFFER SCHAEFFER 293 MOLY 75W90 (--- GAL)**

## RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0750621</b>	WC0698129	WC0548508
Sample Date		Client Info		<b>04 May 2023</b>	28 Jul 2022	08 Apr 2021
Machine Age	hrs	Client Info		<b>10346</b>	8097	4713
Oil Age	hrs	Client Info		<b>0</b>	0	1000
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	Not Changed	N/A
Sample Status				<b>SEVERE</b>	SEVERE	SEVERE

## WEAR

Iron ppm levels are severe. Gear wear is indicated.

Iron	ppm	ASTM D5185m	>500	<b>▲ 2891</b>	▲ 2559	▲ 1713
Chromium	ppm	ASTM D5185m	>10	<b>8</b>	7	5
Nickel	ppm	ASTM D5185m	>10	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	5
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	7	0
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>3</b>	2	2
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

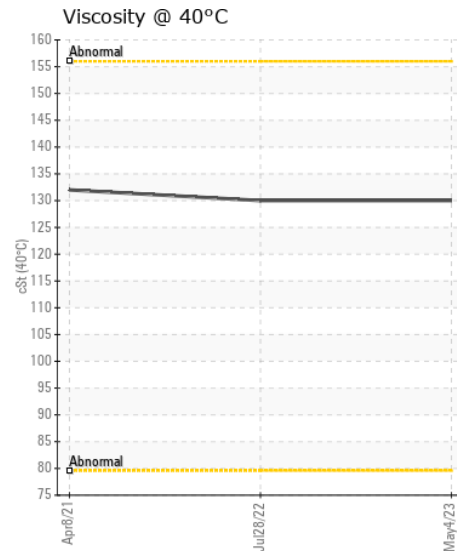
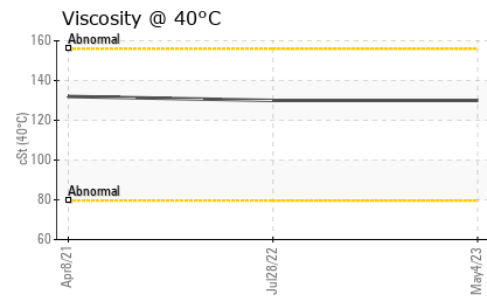
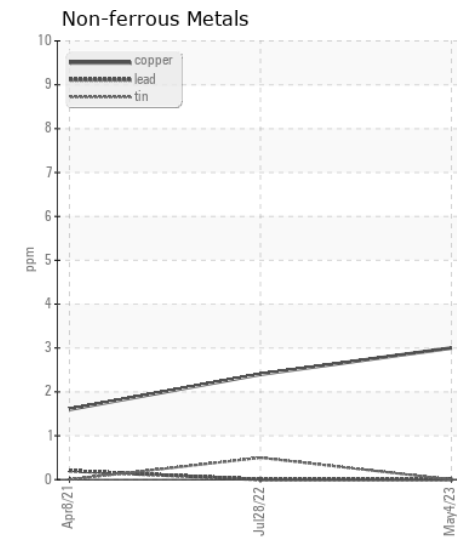
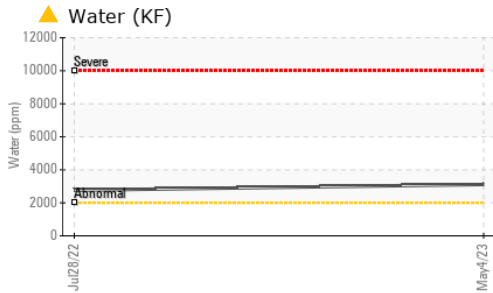
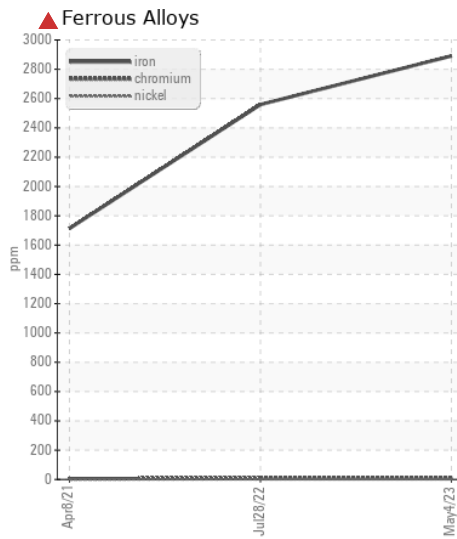
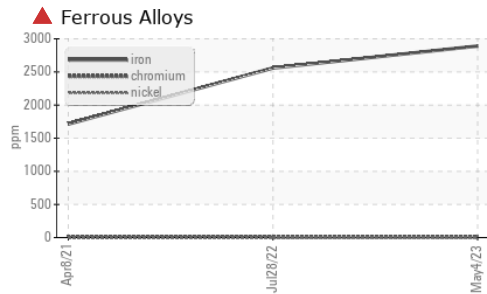
There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>27</b>	22	14
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	1
Water	%	ASTM D6304	>0.2	<b>▲ 0.311</b>	▲ 0.276	---
ppm Water	ppm	ASTM D6304	>2000	<b>▲ 3110</b>	▲ 2760	---
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>0.2%</b>	0.2%	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>3</b>	3	4
Boron	ppm	ASTM D5185m		<b>114</b>	123	89
Barium	ppm	ASTM D5185m		<b>3</b>	2	<1
Molybdenum	ppm	ASTM D5185m		<b>325</b>	262	135
Manganese	ppm	ASTM D5185m		<b>27</b>	26	17
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	1	1
Calcium	ppm	ASTM D5185m		<b>114</b>	108	75
Phosphorus	ppm	ASTM D5185m		<b>1462</b>	1396	1470
Zinc	ppm	ASTM D5185m		<b>42</b>	49	49
Sulfur	ppm	ASTM D5185m		<b>24669</b>	20547	17930
Visc @ 40°C	cSt	ASTM D445		<b>130</b>	130	132



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0750621 **Received** : 09 May 2023  
**Lab Number** : 05842824 **Tested** : 11 May 2023  
**Unique Number** : 10466931 **Diagnosed** : 12 May 2023 - Angela Borella  
**Test Package** : CONST ( Additional Tests: KF )

**SHIMMICK CONSTRUCTION**  
 5535 TRAILHEAD DRIVE  
 CHATTANOOGA, TN  
 US 37415  
 Contact: DANIEL LISELLA  
 daniel.lisella@shimmick.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:  
F: