



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

Area  
**BRIAN RAFFERTY**  
Machine Id  
[**BRIAN RAFFERTY**] 006 566616-6  
Component  
**Starboard Reduction Gear**  
Fluid  
**SCHAEFFER XL 150 (135 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0062802</b>	MW0062797	MW0062789
Sample Date		Client Info		<b>18 Apr 2024</b>	01 Apr 2024	01 Feb 2024
Machine Age	hrs	Client Info		<b>30362</b>	29954	28490
Oil Age	hrs	Client Info		<b>30362</b>	29954	28490
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ATTENTION	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>50</b>	● 110	50
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>18</b>	16	14
Lead	ppm	ASTM D5185m	>100	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>40</b>	40	38
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<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**

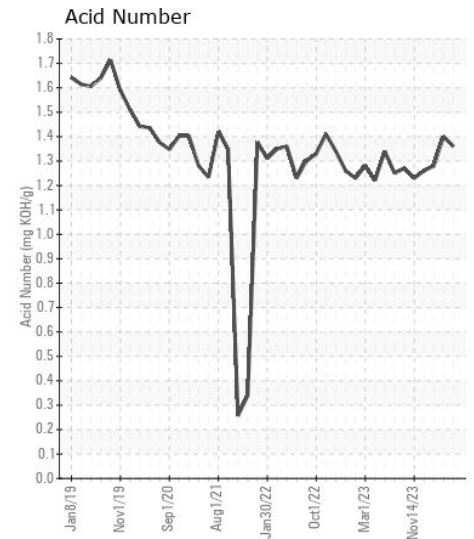
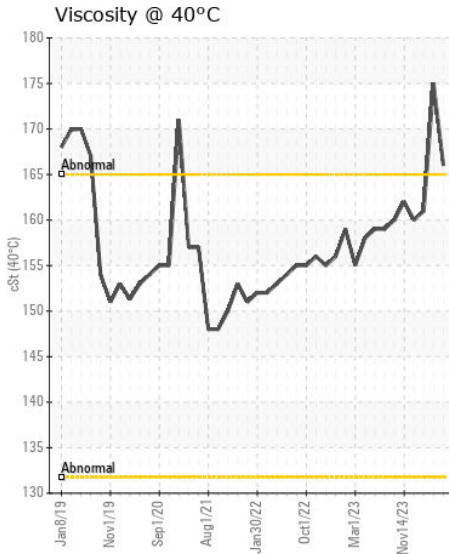
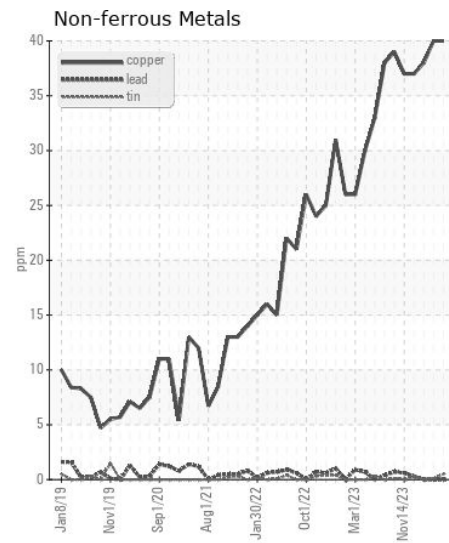
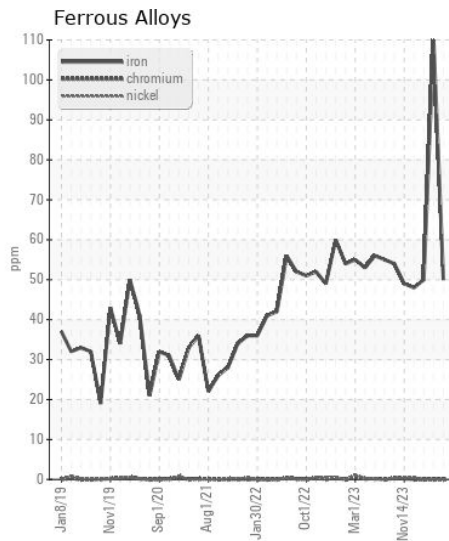
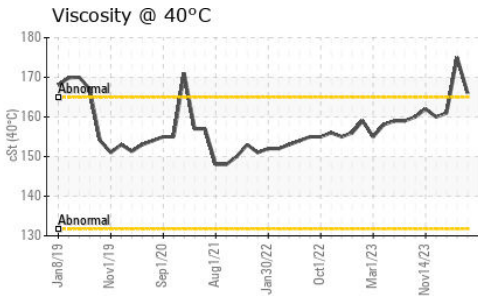
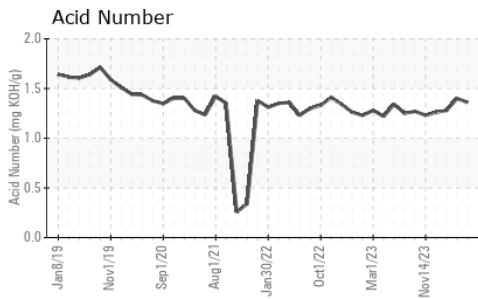
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>18</b>	22	17
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Water		WC Method	>0.1	<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	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>9</b>	10	7
Boron	ppm	ASTM D5185m		<b>10</b>	14	3
Barium	ppm	ASTM D5185m		<b>1</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>285</b>	247	276
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>2</b>	3	0
Calcium	ppm	ASTM D5185m		<b>68</b>	91	65
Phosphorus	ppm	ASTM D5185m		<b>752</b>	708	686
Zinc	ppm	ASTM D5185m		<b>53</b>	57	46
Sulfur	ppm	ASTM D5185m		<b>23045</b>	21250	18635
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.36</b>	1.40	1.28
Visc @ 40°C	cSt	ASTM D445		<b>166</b>	175	161



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0062802  
**Lab Number** : 06176180  
**Unique Number** : 11022233  
**Test Package** : MAR 2  
**Received** : 10 May 2024  
**Tested** : 13 May 2024  
**Diagnosed** : 13 May 2024 - Wes Davis

**INGRAM BARGE**  
 900 S 3RD ST  
 PADUCAH, KY  
 US 42003

Contact: RANDAL KEEN  
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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)

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