



OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
SEVERE
NORMAL

Area

Wonder

Machine Id

7213-019A

Component

Starboard Steering

Fluid

TUXTON PREMIUM HYDRAULIC AW 32 (38 LTR)

RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. The fluid change at the time of sampling has been noted. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

WEAR

Copper ppm levels are noted. All other component wear rates are normal.

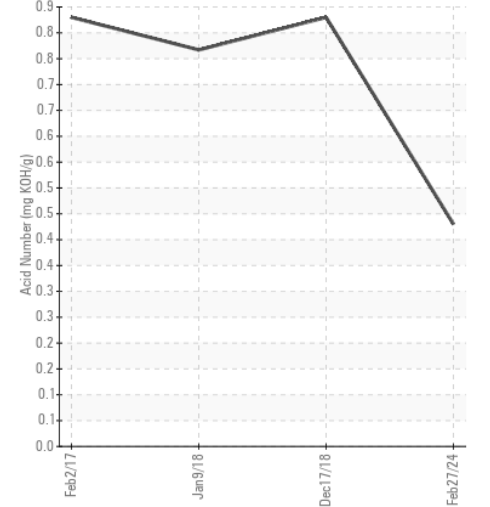
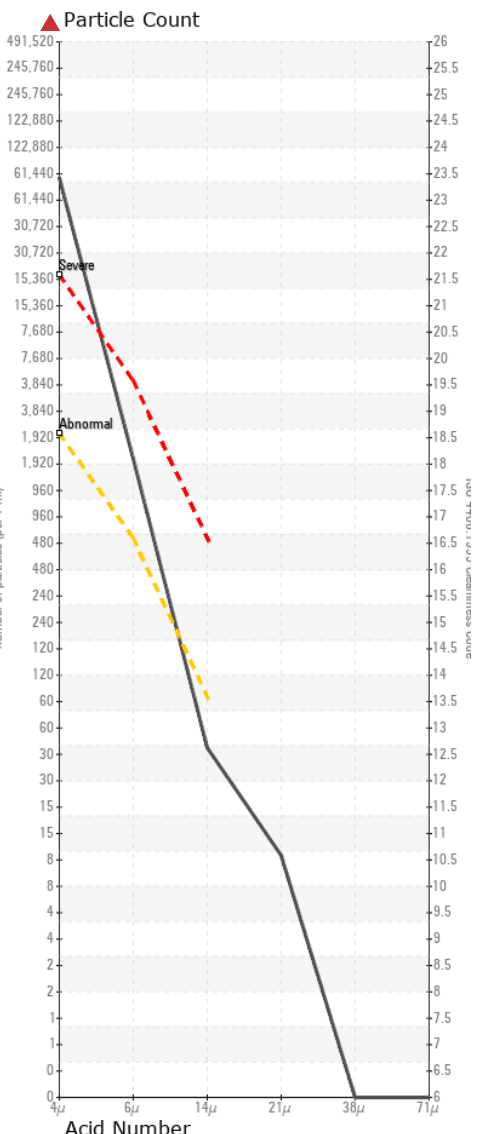
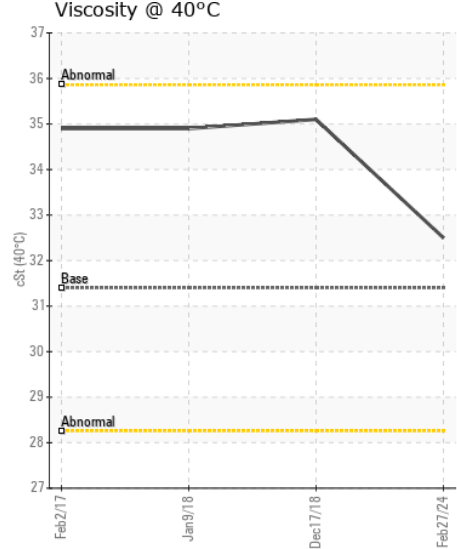
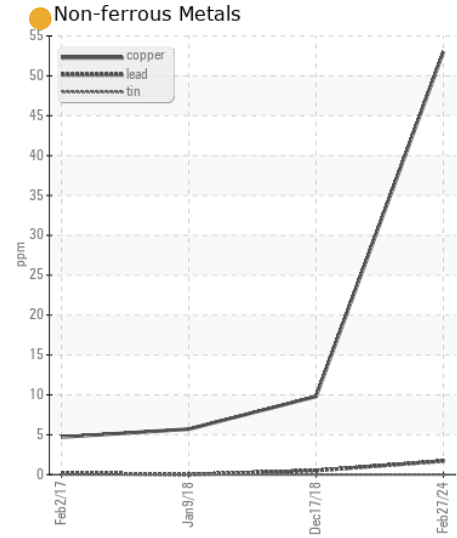
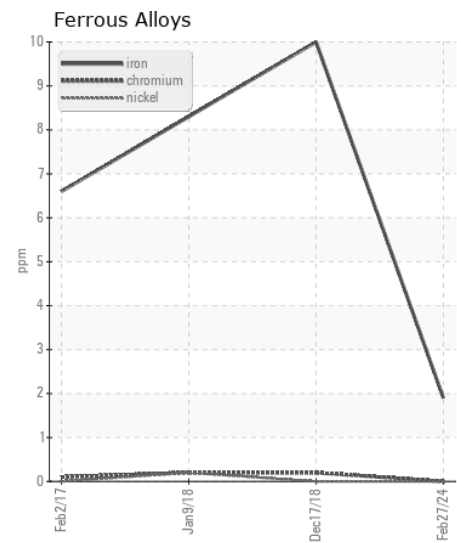
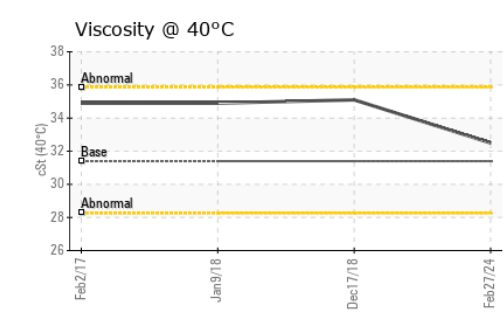
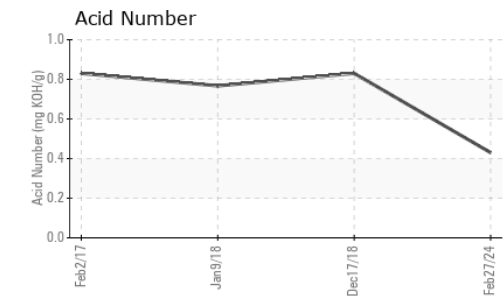
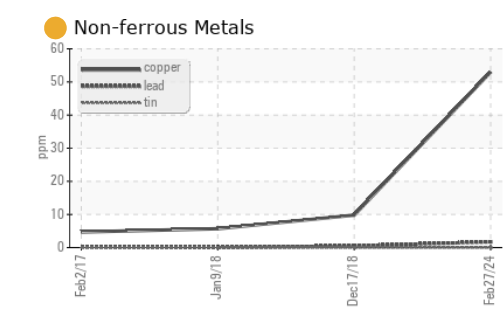
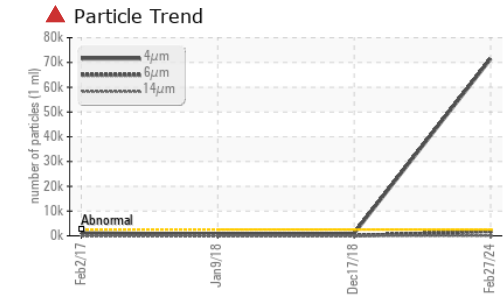
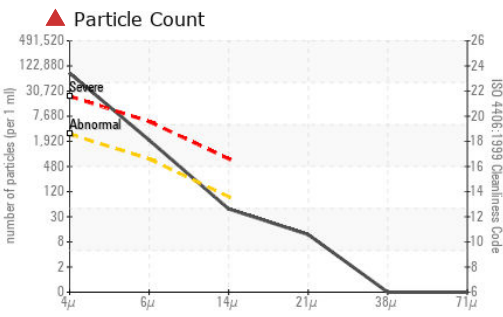
CONTAMINATION

There is a high amount of silt (particulates < 14 microns in size) present in the fluid.

FLUID CONDITION

The AN level is acceptable for this fluid. The fluid is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0868698	WC0305241	WC993566
Sample Date		Client Info		27 Feb 2024	17 Dec 2018	09 Jan 2018
Machine Age	mths	Client Info		0	0	4
Oil Age	mths	Client Info		0	60	4
Filter Age	mths	Client Info		16	8	1
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				SEVERE	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>60	2	10	8
Chromium	ppm	ASTM D5185(m)	>12	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>6	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	0	0
Aluminum	ppm	ASTM D5185(m)	>4	<1	0	0
Lead	ppm	ASTM D5185(m)	>12	2	<1	0
Copper	ppm	ASTM D5185(m)	>30	53	10	6
Tin	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>10	<1	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Water		WC Method		NEG	NEG	NEG
Particles >4µm		ASTM D7647	>2500	71409	987	648
Particles >6µm		ASTM D7647	>640	1800	58	84
Particles >14µm		ASTM D7647	>80	41	5	15
Particles >21µm		ASTM D7647	>20	10	2	5
Particles >38µm		ASTM D7647	>4	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	23/18/13	17/13/10	17/14/11
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*		NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		<1	<1	0
Boron	ppm	ASTM D5185(m)		1	<1	<1
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	<1	0
Magnesium	ppm	ASTM D5185(m)		2	<1	<1
Calcium	ppm	ASTM D5185(m)		32	82	88
Phosphorus	ppm	ASTM D5185(m)		350	398	412
Zinc	ppm	ASTM D5185(m)		423	574	598
Sulfur	ppm	ASTM D5185(m)		1212	4119	4120
Acid Number (AN)	mg KOH/g	ASTM D974*		0.43	0.83	0.767
Visc @ 40°C	cSt	ASTM D7279(m)	31.4	32.5	35.1	34.9



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0868698
Lab Number : 02620202
Unique Number : 5737312
Test Package : MAR 2 (Additional Tests: PrtCount)
Received : 06 Mar 2024
Tested : 07 Mar 2024
Diagnosed : 07 Mar 2024 - Kevin Marson

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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.