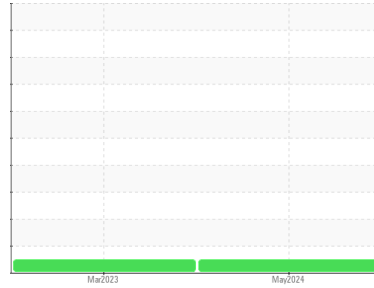




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
SEAWARD ENDEAVOR
 Machine Id
Endeavor
 Component
Port Reduction Gear
 Fluid
SHELL ROTELLA T 30 (9 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0907673	WC0779522	---
Sample Date	Client Info			10 May 2024	18 Mar 2023	---
Machine Age	hrs	Client Info		17246	13183	---
Oil Age	hrs	Client Info		0	13183	---
Oil Changed	Client Info			N/A	Not Changd	---
Sample Status				NORMAL	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	NEG	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	8	13	---
Chromium	ppm	ASTM D5185m	>10	0	<1	---
Nickel	ppm	ASTM D5185m	>10	<1	0	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m		0	3	---
Aluminum	ppm	ASTM D5185m	>25	1	3	---
Lead	ppm	ASTM D5185m	>100	0	<1	---
Copper	ppm	ASTM D5185m	>50	46	6	---
Tin	ppm	ASTM D5185m	>10	0	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		<1	<1	---

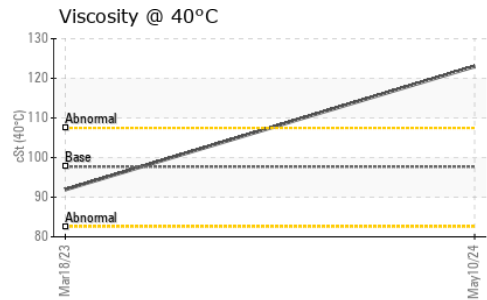
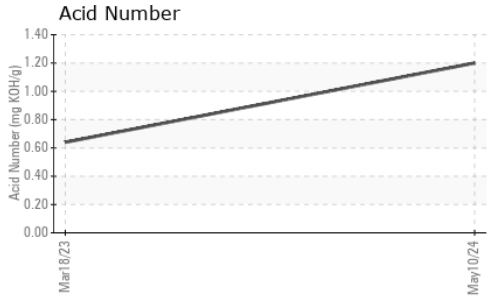
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	2	363	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m	0	<1	43	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		245	43	---
Calcium	ppm	ASTM D5185m	1890	3630	3710	---
Phosphorus	ppm	ASTM D5185m	680	909	939	---
Zinc	ppm	ASTM D5185m	750	1006	1064	---
Sulfur	ppm	ASTM D5185m		5042	4814	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	13	19	---
Sodium	ppm	ASTM D5185m		13	7	---
Potassium	ppm	ASTM D5185m	>20	2	2	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		1.20	0.64	---



OIL ANALYSIS REPORT



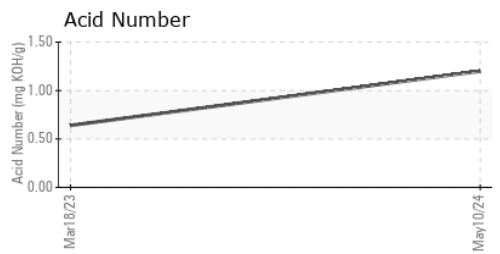
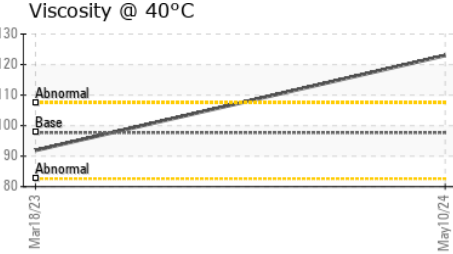
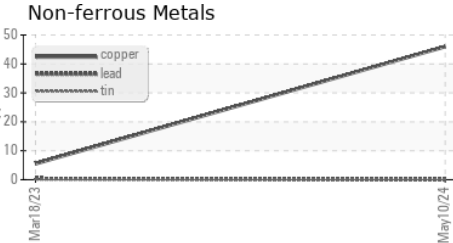
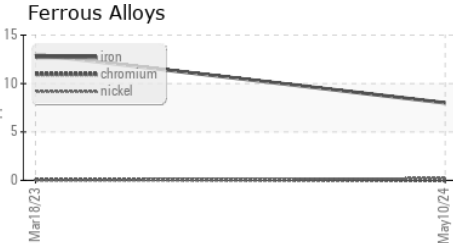
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	97.7	123	91.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image	no image
Bottom				no image	no image	no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0907673
Lab Number : 06211915
Unique Number : 11084779
Test Package : MAR 2
Received : 17 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 19 Jun 2024 - Angela Borella

SEAWARD SERVICES
 222 PEARL ST
 NEW ALBANY, IN
 US 47150

Contact: PETER CHARBONNET
 PCHARBONNET@HMS-SEAWARD.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: