



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
ENDEAVOR
 Component
Center Main Engine
 Fluid
TITAN 15W40 (9 GAL)

RECOMMENDATION

We recommend that you change the oil at the next available stoppage or outage. 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		WC0834576	WC0847403	---
Sample Date		Client Info		26 Apr 2024	21 Oct 2023	---
Machine Age	hrs	Client Info		9707	9413	---
Oil Age	hrs	Client Info		169	384	---
Filter Age	hrs	Client Info		169	384	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	5	7	---
Chromium	ppm	ASTM D5185m	>8	<1	0	---
Nickel	ppm	ASTM D5185m	>2	0	0	---
Titanium	ppm	ASTM D5185m	>3	2	3	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>15	<1	1	---
Lead	ppm	ASTM D5185m	>18	1	1	---
Copper	ppm	ASTM D5185m	>80	<1	2	---
Tin	ppm	ASTM D5185m	>14	0	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

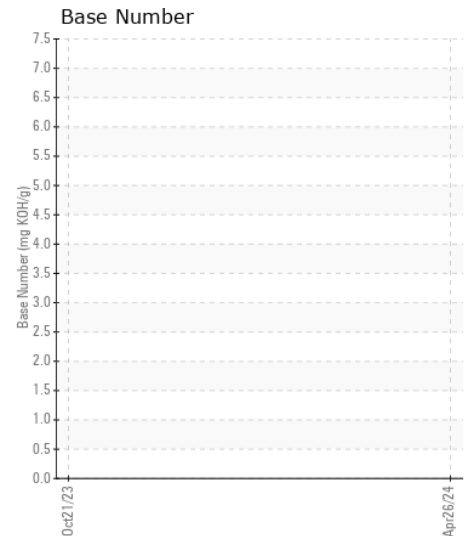
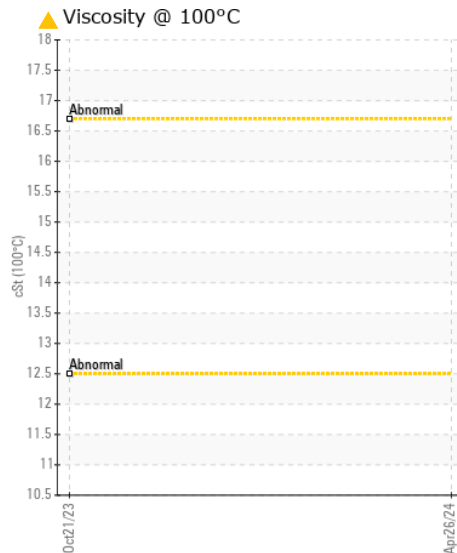
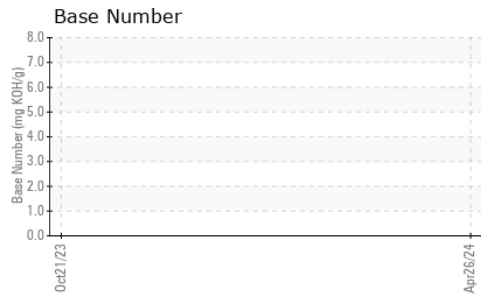
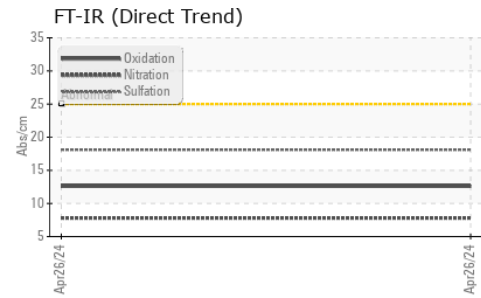
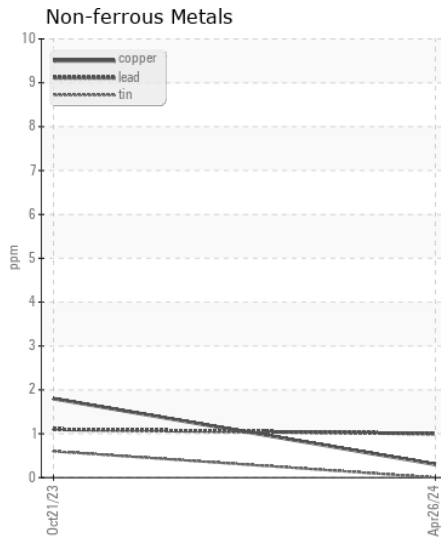
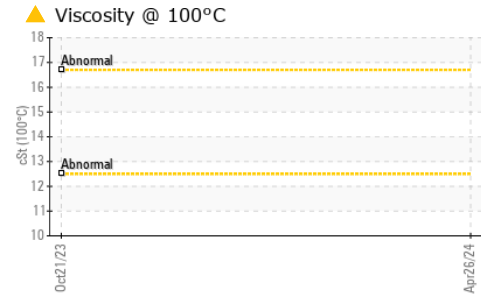
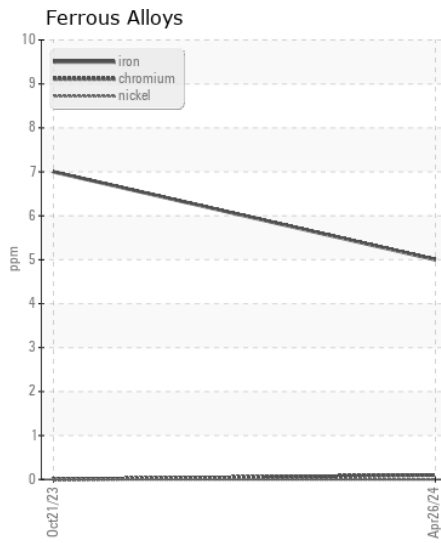
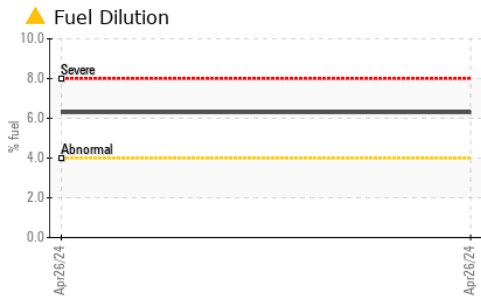
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>20	3	3	---
Potassium	ppm	ASTM D5185m	>20	1	2	---
Fuel	%	ASTM D3524	>4.0	▲ 6.3	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.8	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	---	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>75	2	1	---
Boron	ppm	ASTM D5185m		30	101	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		14	59	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		115	433	---
Calcium	ppm	ASTM D5185m		2337	1872	---
Phosphorus	ppm	ASTM D5185m		916	1038	---
Zinc	ppm	ASTM D5185m		1081	1302	---
Sulfur	ppm	ASTM D5185m		4058	3718	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		7.2	---	---
Visc @ 100°C	cSt	ASTM D445		▲ 11.7	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0834576
Lab Number : 06176943
Unique Number : 11022996
Test Package : MAR 2 (Additional Tests: FuelDilution, PercentFuel)

Received : 13 May 2024
Tested : 16 May 2024
Diagnosed : 16 May 2024 - Wes Davis

CITY EXPERIENCES - SEAWARD EXPLORER
 2825 5TH AVENUE
 SAN DIEGO, CA
 US 92103
 Contact: PETER CHARBONNET

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: (985)290-6777

F: