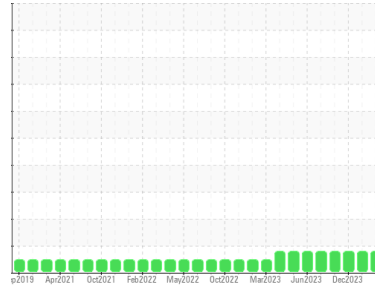




# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area  
**Canton**  
 Machine Id  
**[Canton] Oil - Port Reduction Gear**  
 Component  
**Port Reduction Gear**  
 Fluid  
**MARATHON 40W (40 GAL)**

## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### ▲ Wear

The copper level is abnormal. All other 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		<b>WC0805425</b>	WC0769504	WC0805403
Sample Date	Client Info		<b>27 Feb 2024</b>	01 Feb 2024	14 Dec 2023
Machine Age	hrs	Client Info	<b>0</b>	3059	2054
Oil Age	hrs	Client Info	<b>0</b>	3059	2054
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	<b>6</b>	6	7
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>0</b>	0	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	<1	2
Lead	ppm	ASTM D5185m >100	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >50	<b>▲ 93</b>	▲ 90	▲ 75
Tin	ppm	ASTM D5185m >10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>2</b>	5	2
Barium	ppm	ASTM D5185m	<b>0</b>	<1	6
Molybdenum	ppm	ASTM D5185m	<b>37</b>	42	43
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m	<b>609</b>	638	657
Calcium	ppm	ASTM D5185m	<b>712</b>	720	746
Phosphorus	ppm	ASTM D5185m	<b>745</b>	713	834
Zinc	ppm	ASTM D5185m	<b>814</b>	887	941
Sulfur	ppm	ASTM D5185m	<b>2597</b>	2360	2643

## CONTAMINANTS

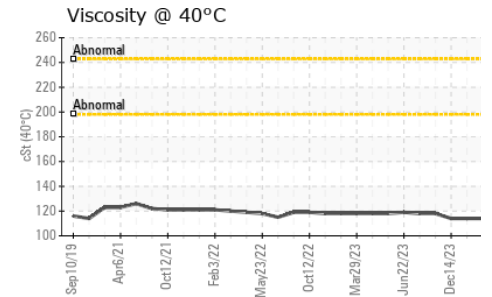
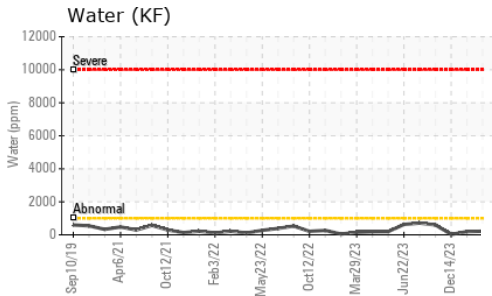
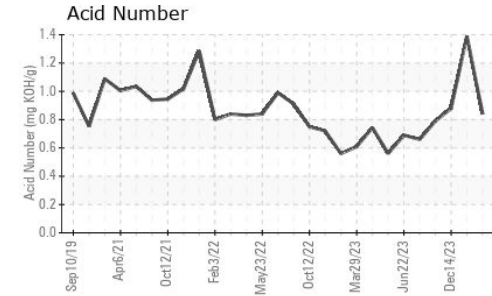
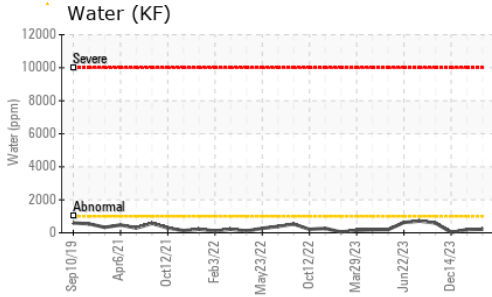
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>&lt;1</b>	3	2
Sodium	ppm	ASTM D5185m	<b>5</b>	7	4
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	2
Water	%	ASTM D6304 >0.1	<b>0.021</b>	0.019	0.002
ppm Water	ppm	ASTM D6304 >1000	<b>218</b>	195	23

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.84</b>	1.39	0.88



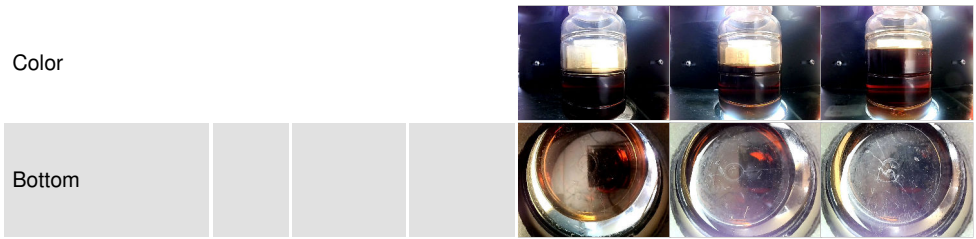
# OIL ANALYSIS REPORT



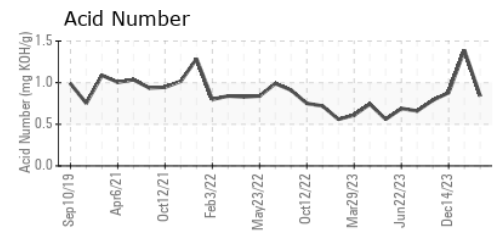
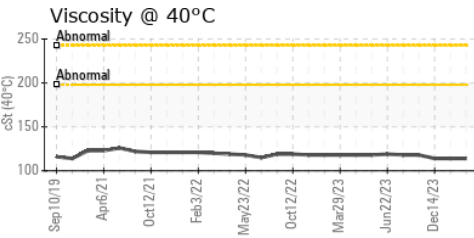
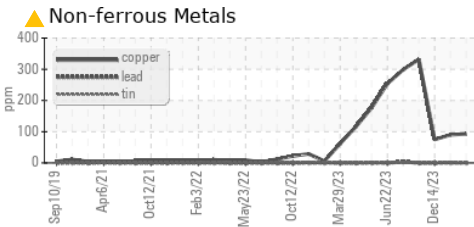
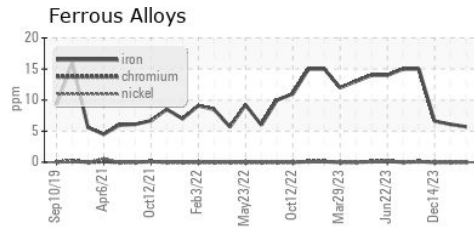
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	114	114	114

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0805425 **Received** : 19 Mar 2024  
**Lab Number** : 06122458 **Tested** : 20 Mar 2024  
**Unique Number** : 10936609 **Diagnosed** : 21 Mar 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF )

**MARATHON PETROLEUM CO.**  
 101 12TH ST  
 CATLETTSBURG, KY  
 US 41169  
 Contact: M/V CANTON  
 mvcanton@marathonpetroleum.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)