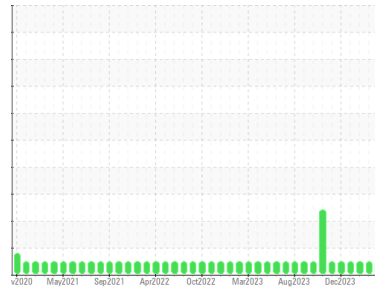




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**Tampa**

Machine Id

**[Tampa] Oil - Port Reduction Gear**

Component

**Starboard Reduction Gear**

Fluid

**MOBIL DELVAC 1640 (28 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		<b>WC0805296</b>	WC0805304	WC0805285
Sample Date	Client Info		<b>11 Apr 2024</b>	13 Mar 2024	14 Feb 2024
Machine Age	hrs	Client Info	<b>23200</b>	10229	22046
Oil Age	hrs	Client Info	<b>3000</b>	9837	2266
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	<b>4</b>	7	6
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	2	2
Lead	ppm	ASTM D5185m >100	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >50	<b>&lt;1</b>	6	3
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	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>7</b>	7	7
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>33</b>	35	31
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m	<b>171</b>	188	161
Calcium	ppm	ASTM D5185m	<b>2853</b>	2962	2877
Phosphorus	ppm	ASTM D5185m	<b>605</b>	613	588
Zinc	ppm	ASTM D5185m	<b>667</b>	695	637
Sulfur	ppm	ASTM D5185m	<b>7107</b>	6410	5882

## CONTAMINANTS

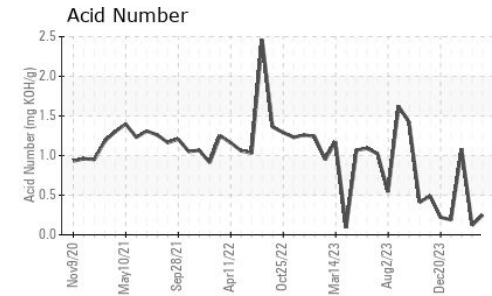
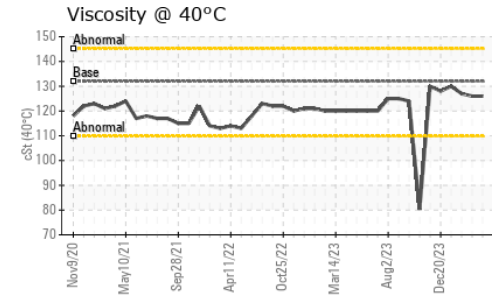
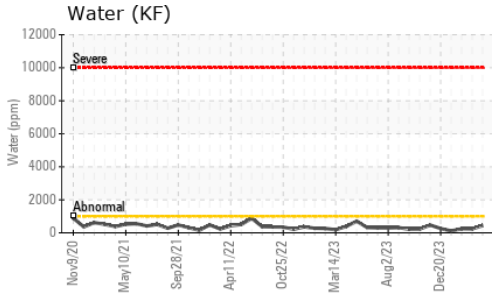
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>4</b>	4	4
Sodium	ppm	ASTM D5185m	<b>3</b>	2	3
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	3	0
Water	%	ASTM D6304 >0.1	<b>0.044</b>	0.023	0.024
ppm Water	ppm	ASTM D6304 >1000	<b>441</b>	234	246

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.25</b>	0.12	1.084



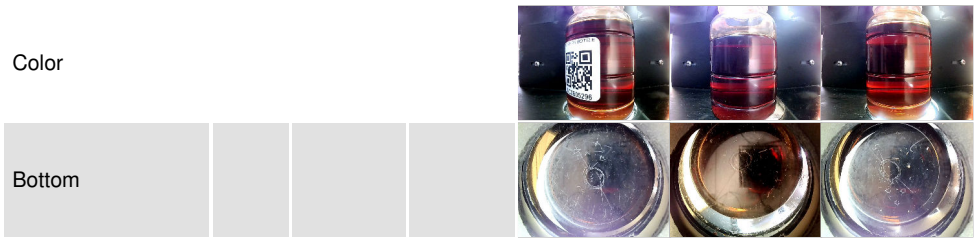
# OIL ANALYSIS REPORT



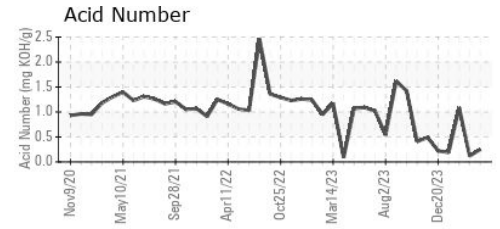
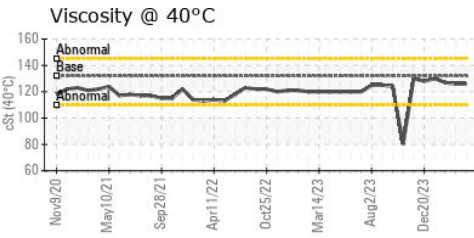
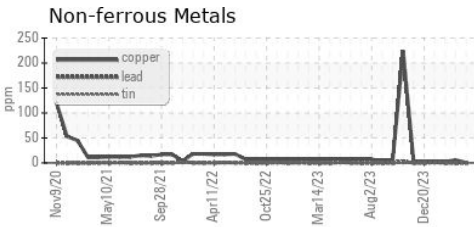
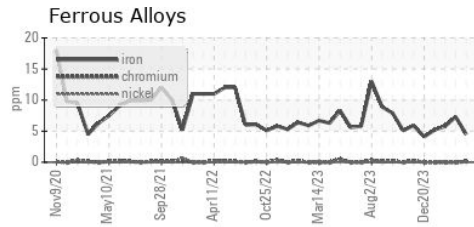
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	132	126	127

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0805296 **Received** : 23 Apr 2024  
**Lab Number** : 06157760 **Tested** : 24 Apr 2024  
**Unique Number** : 10993183 **Diagnosed** : 25 Apr 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF )

**MARATHON PETROLEUM CO.**  
 101 12TH ST  
 CATLETTSBURG, KY  
 US 41169  
 Contact: CORY GUMBERT  
 cagumbert@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)