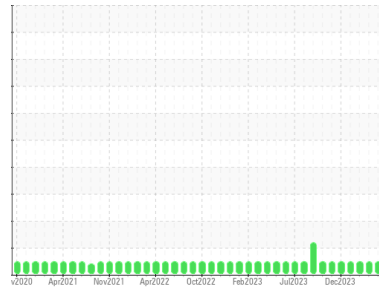




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**Detroit**

Machine Id

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

Component

**Port Reduction Gear**

Fluid

**SAE 30W (35 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Chris Wray )

### 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>WC0804770</b>	WC0804778	WC0804827
Sample Date	Client Info		<b>25 Mar 2024</b>	25 Mar 2024	05 Feb 2024
Machine Age	hrs	Client Info	<b>28968</b>	29912	28801
Oil Age	hrs	Client Info	<b>3779</b>	3779	2668
Oil Changed	Client Info		<b>Not Changed</b>	Not Changd	Not Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	<b>10</b>	8	10
Chromium	ppm	ASTM D5185m >10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	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>1</b>	1	<1
Lead	ppm	ASTM D5185m >100	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m >50	<b>10</b>	4	4
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	<1
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>28</b>	29	29
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>15</b>	14	14
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>226</b>	220	210
Calcium	ppm	ASTM D5185m	<b>3064</b>	3045	2777
Phosphorus	ppm	ASTM D5185m	<b>980</b>	982	858
Zinc	ppm	ASTM D5185m	<b>1075</b>	1059	932
Sulfur	ppm	ASTM D5185m	<b>7886</b>	8013	6012

## CONTAMINANTS

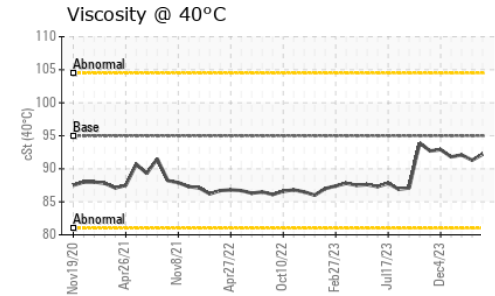
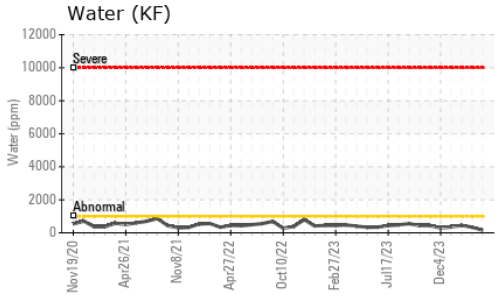
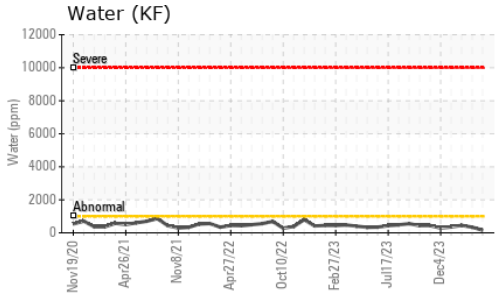
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>2</b>	2	4
Sodium	ppm	ASTM D5185m	<b>2</b>	2	2
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	0
Water	%	ASTM D6304 >0.1	<b>0.016</b>	0.034	0.045
ppm Water	ppm	ASTM D6304 >1000	<b>162</b>	341	452

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.892</b>	0.885	1.14



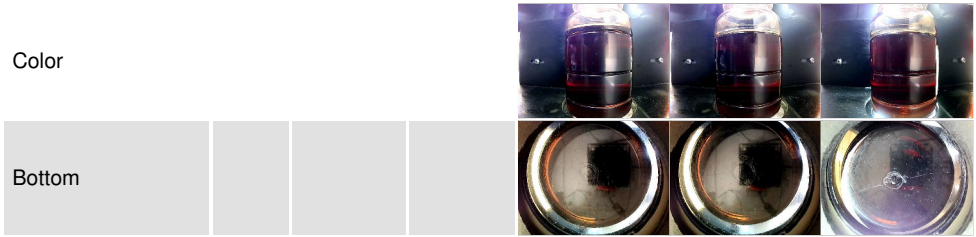
# OIL ANALYSIS REPORT



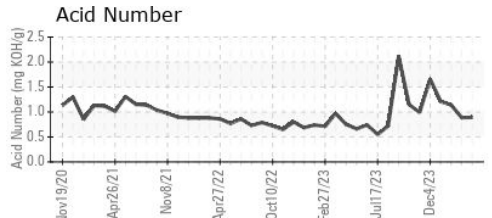
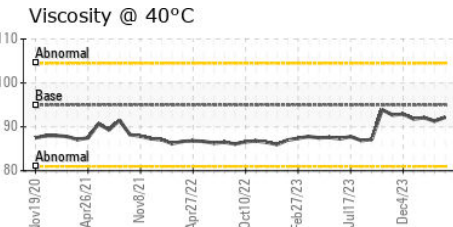
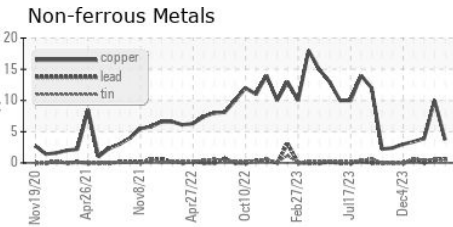
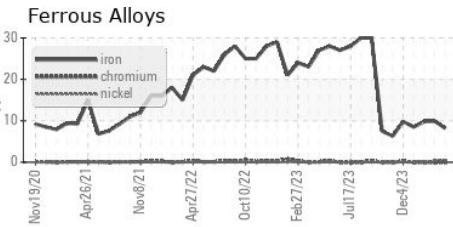
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	95.0	<b>92.2</b>	91.3	92.1

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0804770      **Received** : 05 Apr 2024  
**Lab Number** : **06139992**      **Tested** : 08 Apr 2024  
**Unique Number** : 10964800      **Diagnosed** : 08 Apr 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF )

**MARATHON PETROLEUM CO.**  
 101 12TH ST  
 CATLETTSBURG, KY  
 US 41169  
 Contact: SHAWN MCCLASKEY  
 stmcclasskey@marathonpetroleum.com  
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 F: x:

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)