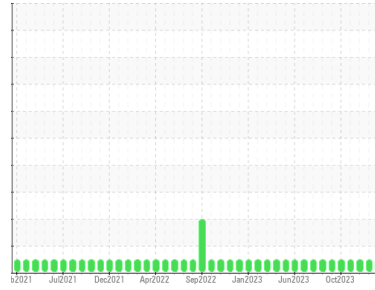




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Martinsville**  
 Machine Id  
**[Martinsville] Oil - Starboard 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>WC0735555</b>	WC0735573	WC0845817
Sample Date	Client Info		<b>15 Feb 2024</b>	21 Jan 2024	23 Dec 2023
Machine Age	hrs	Client Info	<b>23154</b>	22613	22019
Oil Age	hrs	Client Info	<b>9034</b>	10311	7897
Oil Changed	Client Info		<b>Filtered</b>	Not Changd	Filtered
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	<b>14</b>	14	14
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	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185m >100	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >50	<b>31</b>	25	25
Tin	ppm	ASTM D5185m >10	<b>0</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>10</b>	10	12
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>35</b>	37	36
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>535</b>	519	537
Calcium	ppm	ASTM D5185m	<b>1321</b>	1324	1302
Phosphorus	ppm	ASTM D5185m	<b>812</b>	846	829
Zinc	ppm	ASTM D5185m	<b>868</b>	962	939
Sulfur	ppm	ASTM D5185m	<b>3210</b>	3070	2909

## CONTAMINANTS

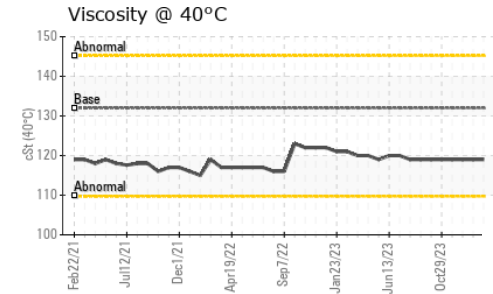
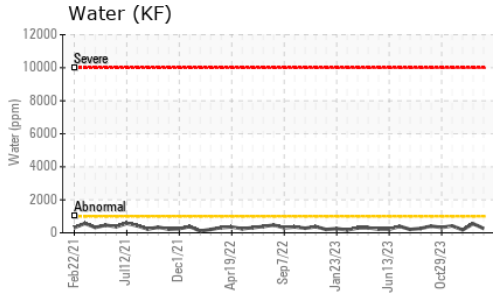
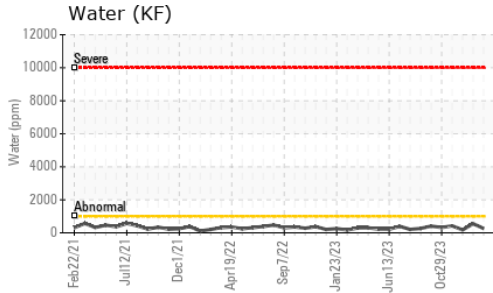
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>1</b>	3	2
Sodium	ppm	ASTM D5185m	<b>3</b>	3	4
Potassium	ppm	ASTM D5185m >20	<b>0</b>	2	<1
Water	%	ASTM D6304 >0.1	<b>0.025</b>	0.055	0.017
ppm Water	ppm	ASTM D6304 >1000	<b>260</b>	555	176

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.85</b>	0.82	0.90



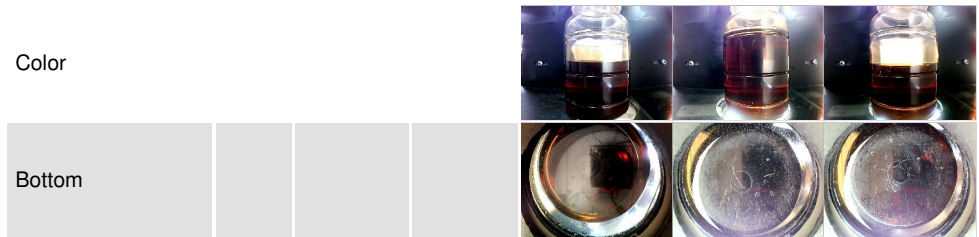
# OIL ANALYSIS REPORT



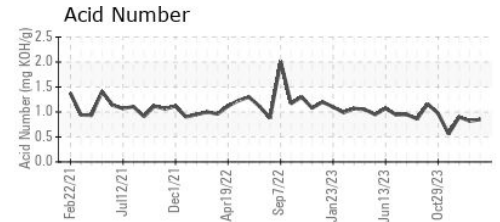
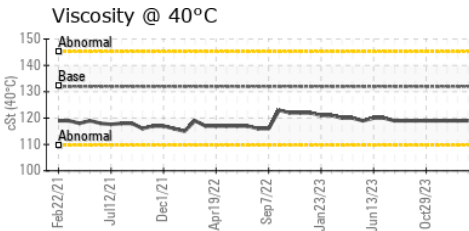
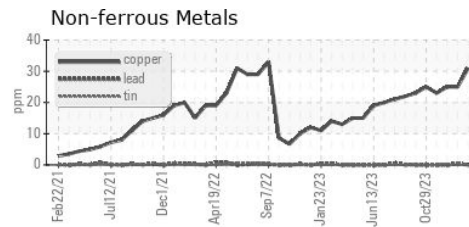
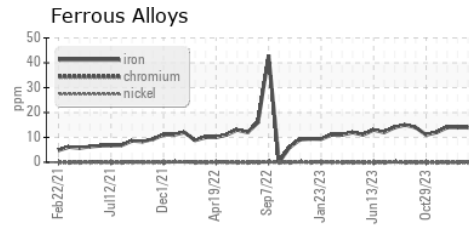
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE
Sand/Dirt	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	132	<b>119</b>	119

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



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0735555 Received : 19 Mar 2024  
 Lab Number : 06122459 Tested : 20 Mar 2024  
 Unique Number : 10936610 Diagnosed : 21 Mar 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  
 T: (606)585-3950

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)

F: x: