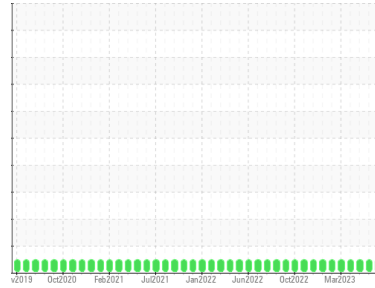




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Ohio Valley**  
 Machine Id  
**[Ohio Valley] Oil - Port Reduction Gear**  
 Component  
**Port Reduction Gear**  
 Fluid  
**GEAR OIL SAE 85W140 (180 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

The water content is negligible. 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>WC0735692</b>	WC0683577	WC0735681
Sample Date	Client Info		<b>09 Jul 2023</b>	11 Jun 2023	12 May 2023
Machine Age	hrs	Client Info	<b>22316</b>	21963	21787
Oil Age	hrs	Client Info	<b>529</b>	176	21787
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	<b>30</b>	37	54
Chromium	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m >10	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	1
Silver	ppm	ASTM D5185m	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	4	12
Lead	ppm	ASTM D5185m >100	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >50	<b>2</b>	2	8
Tin	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 400	<b>282</b>	418	59
Barium	ppm	ASTM D5185m 200	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m 12	<b>1</b>	<1	2
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m 12	<b>5</b>	3	40
Calcium	ppm	ASTM D5185m 150	<b>50</b>	39	53
Phosphorus	ppm	ASTM D5185m 1650	<b>1071</b>	1484	935
Zinc	ppm	ASTM D5185m 125	<b>11</b>	12	39
Sulfur	ppm	ASTM D5185m 22500	<b>25056</b>	39264	16100

## CONTAMINANTS

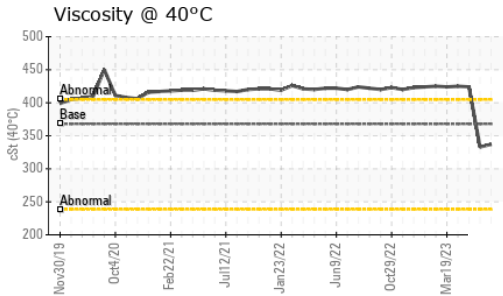
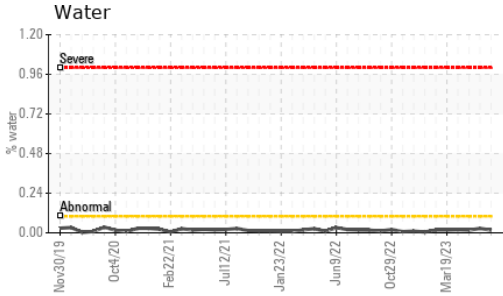
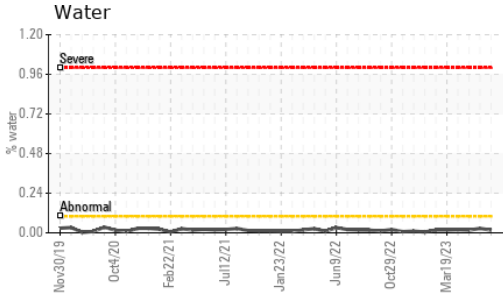
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>4</b>	5	13
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	0	4
Potassium	ppm	ASTM D5185m >20	<b>5</b>	7	57
Water	%	ASTM D6304 >0.1	<b>0.016</b>	0.027	0.016
ppm Water	ppm	ASTM D6304 >1000	<b>165.6</b>	277.2	168.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 2.00	<b>1.60</b>	1.57	1.87



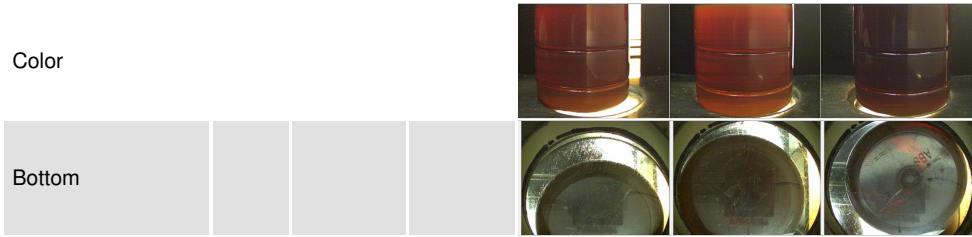
# OIL ANALYSIS REPORT



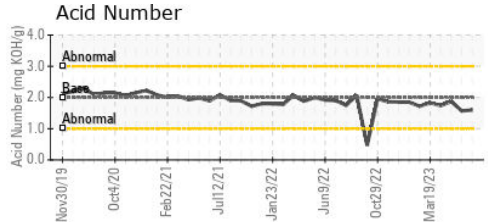
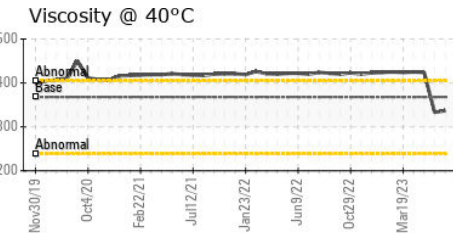
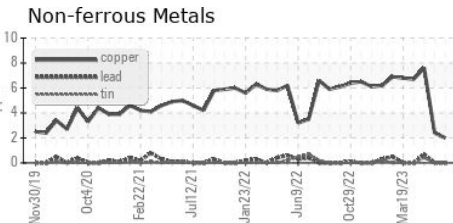
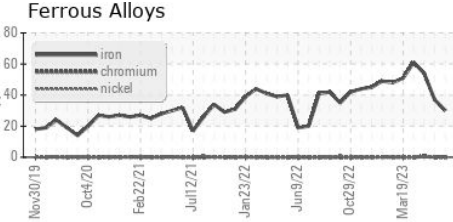
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	368	<b>337</b>	333	424

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0735692 **Received** : 17 Jul 2023  
**Lab Number** : 05900027 **Diagnosed** : 18 Jul 2023  
**Unique Number** : 10561383 **Diagnostician** : Wes Davis  
**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)

T: (606)585-3950

F: x: