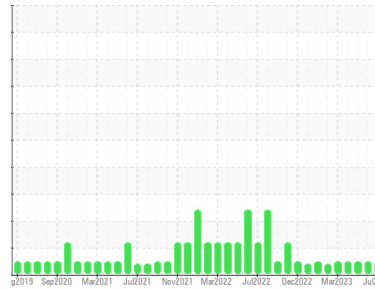




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Detroit**  
 Machine Id  
**[Detroit] Oil - Port Genset**  
 Component  
**Port Genset**  
 Fluid  
**MOBIL 15W40 (35 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0769389</b>	WC0735772	WC0731969
Sample Date	Client Info		<b>17 Jul 2023</b>	19 Jun 2023	22 May 2023
Machine Age	hrs	Client Info	<b>19154</b>	18737	18555
Oil Age	hrs	Client Info	<b>225</b>	182	1
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >25	<b>4</b>	6	2
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>3</b>	<1	5
Lead	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	0
Tin	ppm	ASTM D5185m >5	<b>0</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>121</b>	120	119
Barium	ppm	ASTM D5185m	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>30</b>	29	33
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m	<b>329</b>	344	434
Calcium	ppm	ASTM D5185m	<b>2382</b>	2297	1917
Phosphorus	ppm	ASTM D5185m	<b>559</b>	569	671
Zinc	ppm	ASTM D5185m	<b>700</b>	658	812
Sulfur	ppm	ASTM D5185m	<b>4186</b>	4370	4294

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>5</b>	6	9
Sodium	ppm	ASTM D5185m >118	<b>0</b>	2	<1
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	2

## INFRA-RED

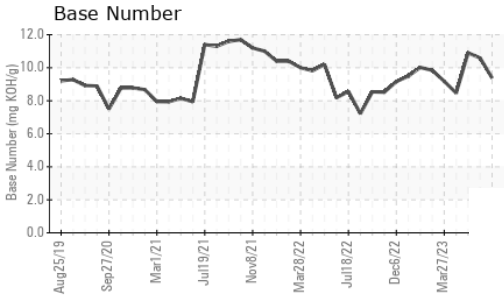
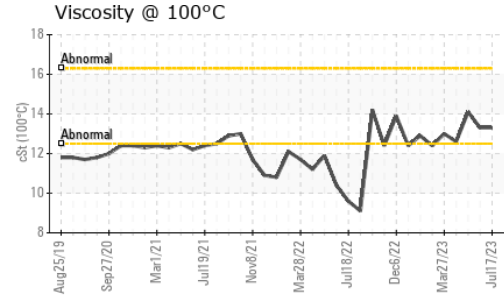
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0.1</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.8</b>	8.4	6.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.5</b>	21.1	20.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.3</b>	15.6	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	<b>9.38</b>	10.59	10.90



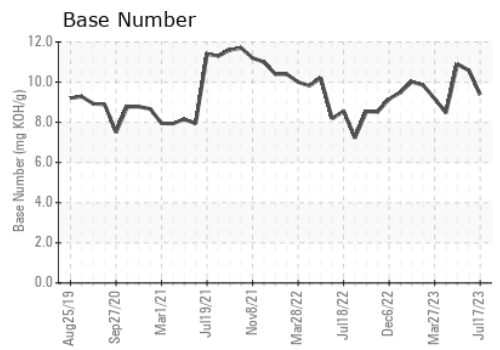
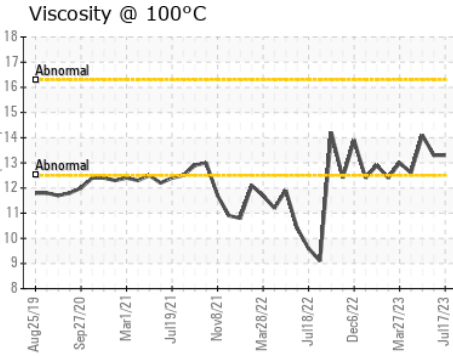
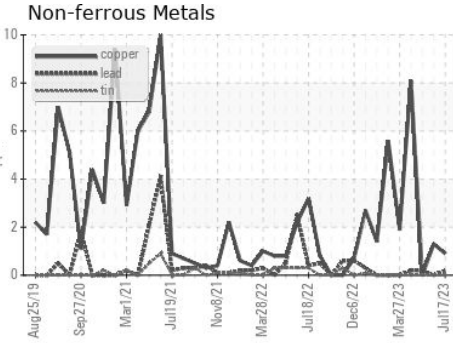
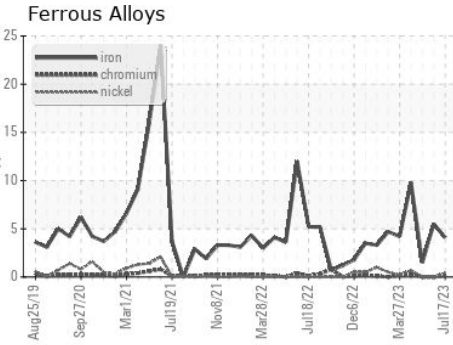
# OIL ANALYSIS REPORT



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 @ 100°C	cSt	ASTM D445	<b>13.3</b>	13.3	14.1

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0769389 **Received** : 21 Jul 2023  
**Lab Number** : **05904535** **Diagnosed** : 26 Jul 2023  
**Unique Number** : 10565891 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2

**MARATHON PETROLEUM CO.**  
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 CATLETTSBURG, KY  
 US 41169  
 Contact: CORY GUMBERT  
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Certificate L2367  
 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)