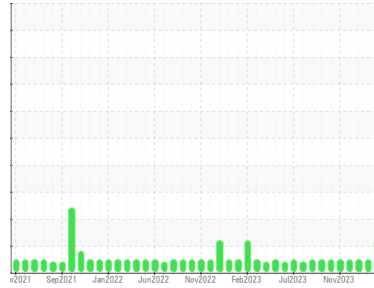




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area  
**Martinsville**  
 Machine Id  
**[Martinsville] Oil - Port Genset**  
 Component  
**Port Genset**  
 Fluid  
**MOBIL 15W40 (7 GAL)**

## DIAGNOSIS

### Recommendation

We advise that you check the fuel injection system. Resample at the next service interval to monitor. ( Customer Sample Comment: George willis )

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of fuel present in the oil.

### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0805454</b>	WC0845819	WC0735537
Sample Date	Client Info		<b>18 Mar 2024</b>	15 Feb 2024	21 Jan 2024
Machine Age	hrs	Client Info	<b>6973</b>	6623	6442
Oil Age	hrs	Client Info	<b>0</b>	174	391
Oil Changed	Client Info		<b>Changed</b>	Filtered	Not Changd
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>6</b>	2	4
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >12	<b>2</b>	0	2
Lead	ppm	ASTM D5185m >17	<b>2</b>	0	3
Copper	ppm	ASTM D5185m >70	<b>1</b>	0	2
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>24</b>	26	33
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>60</b>	59	69
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	2
Magnesium	ppm	ASTM D5185m	<b>1326</b>	1458	1446
Calcium	ppm	ASTM D5185m	<b>1137</b>	1176	1182
Phosphorus	ppm	ASTM D5185m	<b>985</b>	947	1051
Zinc	ppm	ASTM D5185m	<b>1157</b>	1159	1264
Sulfur	ppm	ASTM D5185m	<b>3168</b>	3661	3205

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>5</b>	2	4
Sodium	ppm	ASTM D5185m >118	<b>&lt;1</b>	0	4
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	3
Fuel	%	ASTM D3524 >4.0	<b>▲ 7.1</b>	<1.0	0.3
Water	%	ASTM D6304 >0.1	<b>NEG</b>	NEG	NEG

## INFRA-RED

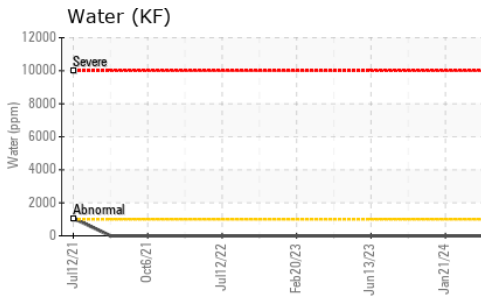
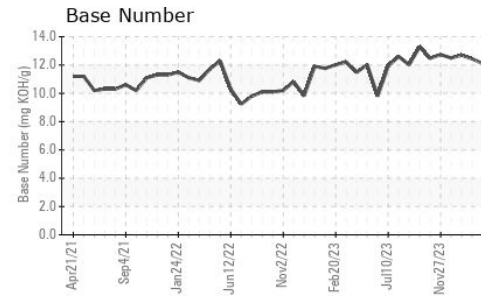
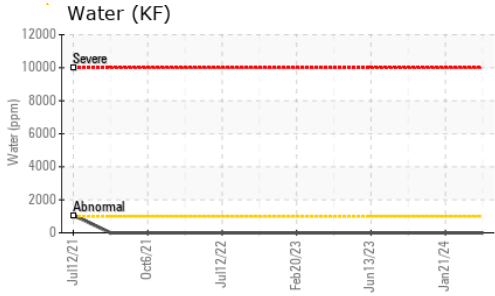
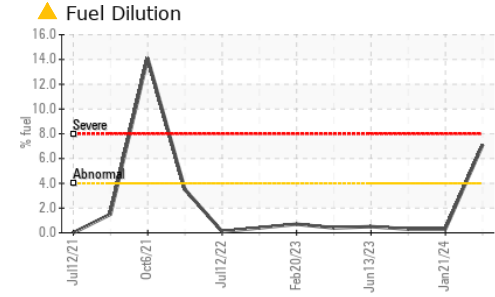
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0.2</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.0</b>	7.1	8.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.6</b>	19.0	20.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.5</b>	14.9	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	<b>12.10</b>	12.44	12.69



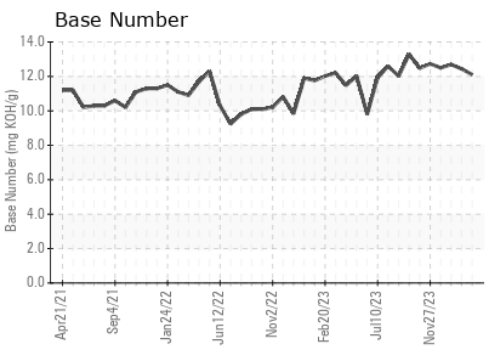
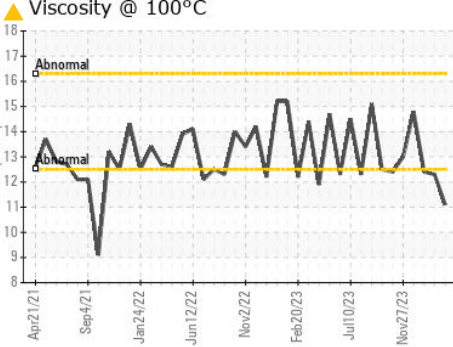
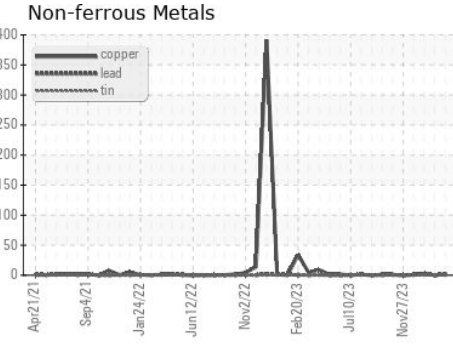
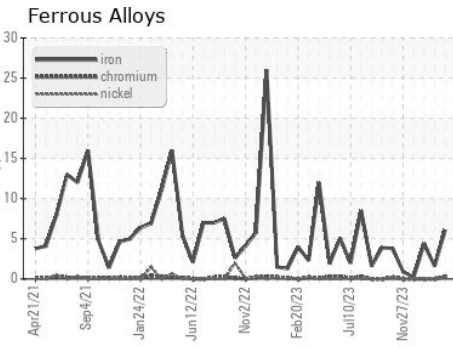
# OIL ANALYSIS REPORT



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	▲ 11.1	12.3	12.4

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0805454

Lab Number : 06130823

Unique Number : 10950288

Test Package : IND 2 ( Additional Tests: FuelDilution, KF, PercentFuel )

Received : 27 Mar 2024

Tested : 02 Apr 2024

Diagnosed : 02 Apr 2024 - Jonathan Hester

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)

MARATHON PETROLEUM CO.

101 12TH ST

CATLETTSBURG, KY

US 41169

Contact: CORY GUMBERT

cagumbert@marathonpetroleum.com

T: (606)585-3950

F: x: