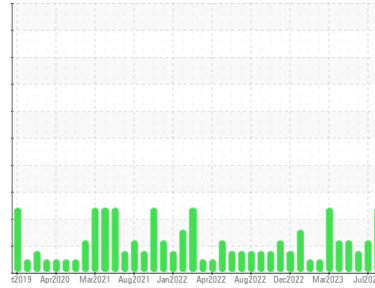




PROBLEM SUMMARY

Sample Rating Trend



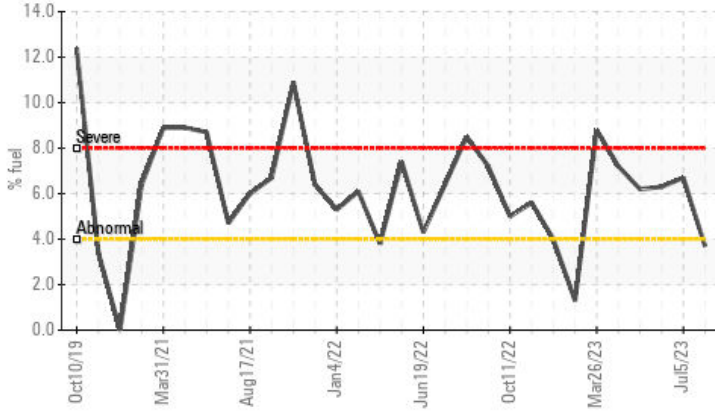
VISUAL METAL



Area
Louisville
 Machine Id
[Louisville] Oil - Port Genset
 Component
Port Genset
 Fluid
MOBIL 15W40 (35 GAL)

COMPONENT CONDITION SUMMARY

▲ Fuel Dilution



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Fuel	%	ASTM D3524	>4.0	▲ 3.7	▲ 6.7	▲ 6.3
White Metal	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE	NONE

Customer Id: MARCAT
 Sample No.: WC0769115
 Lab Number: 05932235
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

05 Jul 2023 Diag: Jonathan Hester

FUEL



We advise that you check the fuel injection system. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)



05 Jun 2023 Diag: Sean Felton

FUEL



We advise that you check the fuel injection system. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of fuel present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

[view report](#)



20 May 2023 Diag: Jonathan Hester

FUEL



We advise that you check the fuel injection system. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)



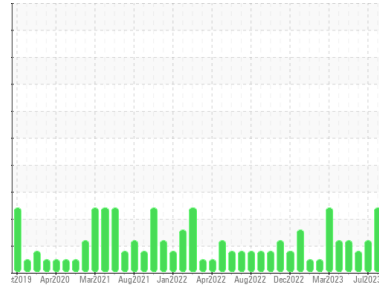


OIL ANALYSIS REPORT

Sample Rating Trend

VISUAL METAL

Area
Louisville
 Machine Id
[Louisville] Oil - Port Genset
 Component
Port Genset
 Fluid
MOBIL 15W40 (35 GAL)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

Moderate concentration of visible metal present. All component wear rates are normal.

Contamination

Light fuel dilution occurring. Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0769115	WC0769310	WC0735757
Sample Date	Client Info		12 Aug 2023	05 Jul 2023	05 Jun 2023
Machine Age	hrs	Client Info	337	0	21844
Oil Age	hrs	Client Info	0	0	486
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >25	7	7	4
Chromium	ppm	ASTM D5185m >5	1	<1	<1
Nickel	ppm	ASTM D5185m >5	0	0	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >5	<1	0	0
Aluminum	ppm	ASTM D5185m >10	2	<1	0
Lead	ppm	ASTM D5185m >10	1	0	0
Copper	ppm	ASTM D5185m >20	2	2	<1
Tin	ppm	ASTM D5185m >5	1	0	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	36	24	27
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	67	63	58
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1637	1545	1480
Calcium	ppm	ASTM D5185m	1349	1264	1154
Phosphorus	ppm	ASTM D5185m	1148	1041	1006
Zinc	ppm	ASTM D5185m	1404	1312	1248
Sulfur	ppm	ASTM D5185m	4400	4013	3974

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	3	15
Sodium	ppm	ASTM D5185m >118	4	<1	<1
Potassium	ppm	ASTM D5185m >20	2	1	<1
Fuel	%	ASTM D3524 >4.0	▲ 3.7	▲ 6.7	▲ 6.3

INFRA-RED

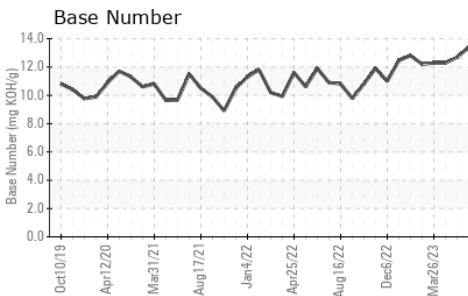
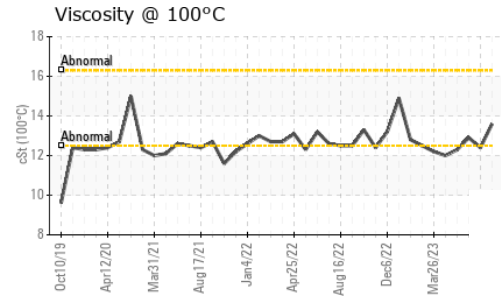
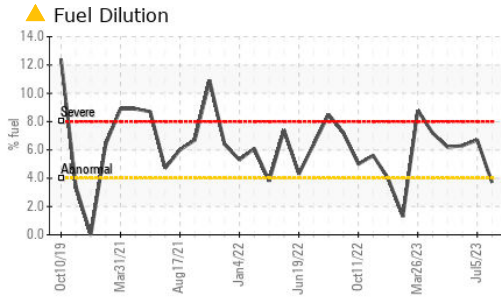
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	8.6	11.5	8.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.0	21.0	19.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.6	19.4	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	13.45	9.75	13.39



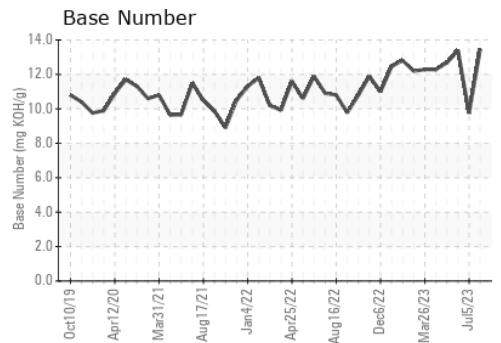
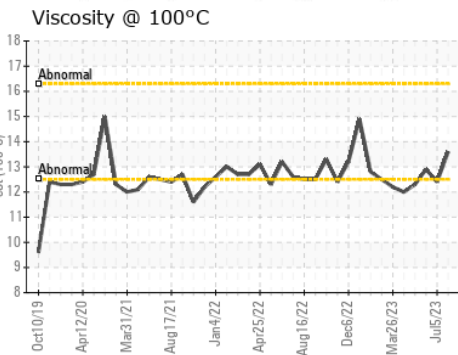
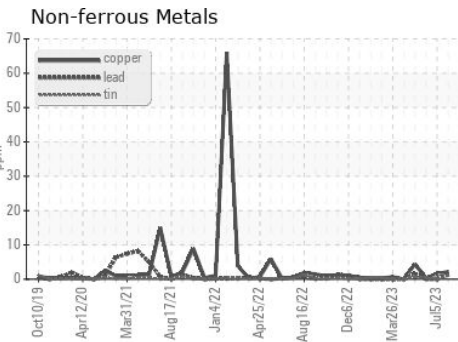
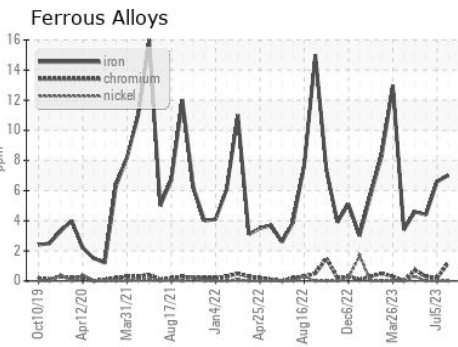
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	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	13.6	▲ 12.4	12.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0769115 Received : 23 Aug 2023
 Lab Number : 05932235 Diagnosed : 24 Aug 2023
 Unique Number : 10617506 Diagnostician : Don Baldrige
 Test Package : IND 2 (Additional Tests: PercentFuel)

MARATHON PETROLEUM CO.
 101 12TH ST
 CATLETTSBURG, KY
 US 41169
 Contact: CORY GUMBERT
 cagumbert@marathonpetroleum.com
 T: (606)585-3950
 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)