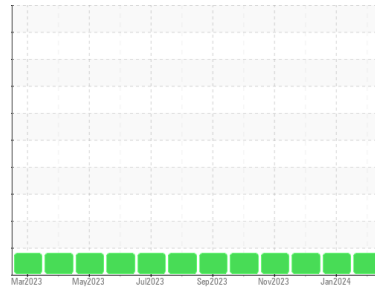




OIL ANALYSIS REPORT

Sample Rating Trend



Area
Huntington
 Machine Id
[Huntington] Oil - Port Reduction Gear
 Component
Port Reduction Gear
 Fluid
 DIESEL ENGINE OIL SAE 40 (24 GAL)

DIAGNOSIS

- Recommendation**
No corrective action is recommended at this time. Resample at the next service interval to monitor.
- Wear**
The copper level is abnormal. All other 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		WC0874744	WC0845906	WC0845901
Sample Date	Client Info		19 Mar 2024	21 Jan 2024	23 Dec 2023
Machine Age	hrs	Client Info	20995	19837	19224
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Changed	Not Changd	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	4	4	4
Chromium	ppm	ASTM D5185m >10	0	0	<1
Nickel	ppm	ASTM D5185m >10	0	0	<1
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	<1	0	0
Aluminum	ppm	ASTM D5185m >25	<1	<1	1
Lead	ppm	ASTM D5185m >100	0	3	<1
Copper	ppm	ASTM D5185m >50	▲ 214	▲ 200	▲ 214
Tin	ppm	ASTM D5185m >10	0	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	7	10	4
Barium	ppm	ASTM D5185m 10	0	0	2
Molybdenum	ppm	ASTM D5185m 100	87	91	93
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m 450	175	187	185
Calcium	ppm	ASTM D5185m 3000	2012	1991	2088
Phosphorus	ppm	ASTM D5185m 1150	824	895	855
Zinc	ppm	ASTM D5185m 1350	893	967	942
Sulfur	ppm	ASTM D5185m 4250	3058	3028	3031

CONTAMINANTS

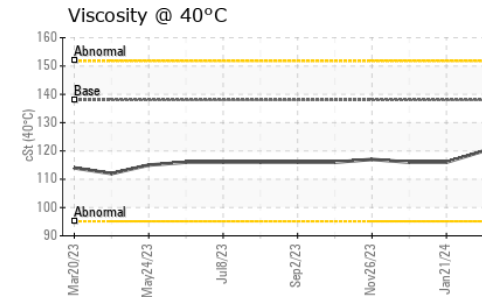
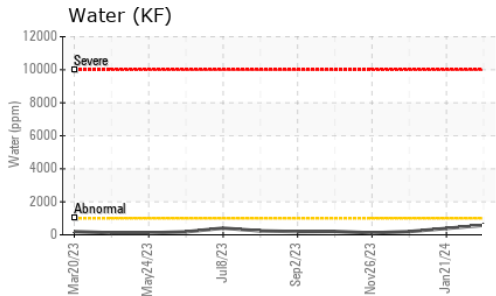
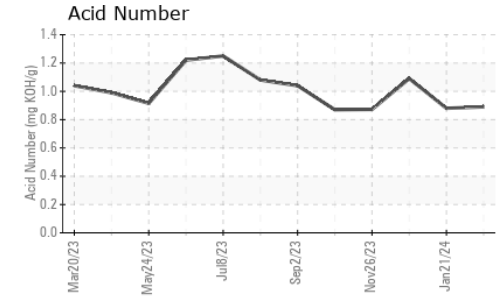
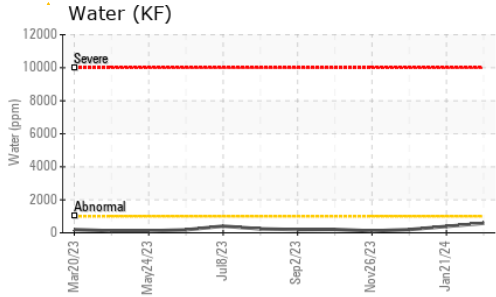
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	2	3	3
Sodium	ppm	ASTM D5185m >216	4	4	2
Potassium	ppm	ASTM D5185m >20	0	1	2
Water	%	ASTM D6304 >0.1	0.057	0.038	0.019
ppm Water	ppm	ASTM D6304 >1000	578	390	197

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.89	0.88	1.09



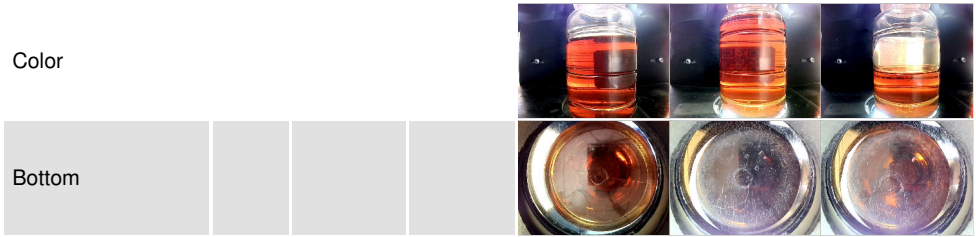
OIL ANALYSIS REPORT



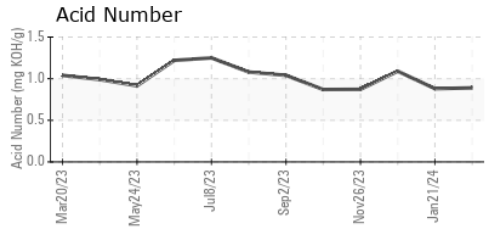
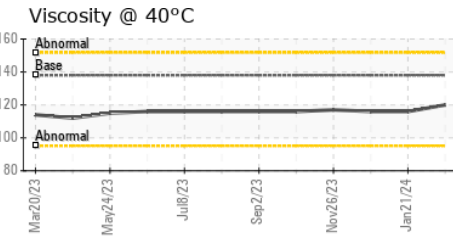
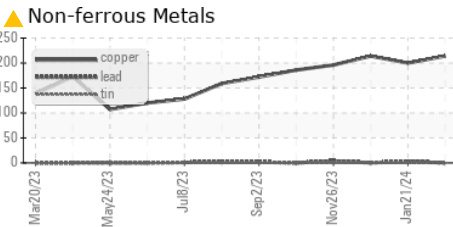
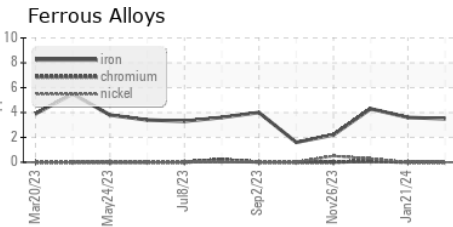
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 @ 40°C	cSt	ASTM D445 138	120	116	116

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0874744 **Received** : 05 Apr 2024
Lab Number : 06139997 **Tested** : 08 Apr 2024
Unique Number : 10964805 **Diagnosed** : 08 Apr 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

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: