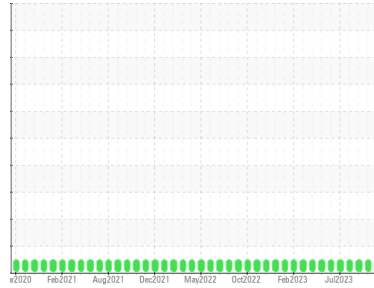




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Martinsville
 Machine Id
[Martinsville] Oil - Port Reduction Gear
 Component
Port Reduction Gear
 Fluid
MOBIL DELVAC 1640 (28 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 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	WC0805440	WC0769055	WC0769077	
Sample Date	Client Info	29 Oct 2023	03 Oct 2023	04 Sep 2023	
Machine Age	hrs	Client Info	20858	20233	20012
Oil Age	hrs	Client Info	8542	7917	7696
Oil Changed	Client Info	Filtered	Not Changd	Filtered	
Sample Status		NORMAL	NORMAL	NORMAL	

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >150	8	10	11
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >10	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	0	0	<1
Lead	ppm	ASTM D5185m >100	0	0	<1
Copper	ppm	ASTM D5185m >50	15	13	12
Tin	ppm	ASTM D5185m >10	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	11	11	13
Barium	ppm	ASTM D5185m	0	<1	0
Molybdenum	ppm	ASTM D5185m	35	38	37
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	468	496	540
Calcium	ppm	ASTM D5185m	1334	1335	1480
Phosphorus	ppm	ASTM D5185m	751	815	815
Zinc	ppm	ASTM D5185m	847	958	965
Sulfur	ppm	ASTM D5185m	2644	3162	3610

CONTAMINANTS

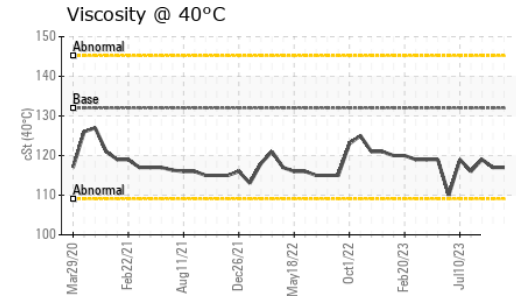
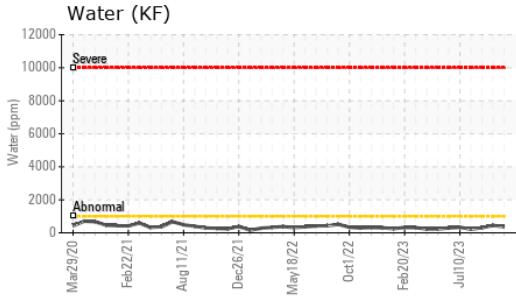
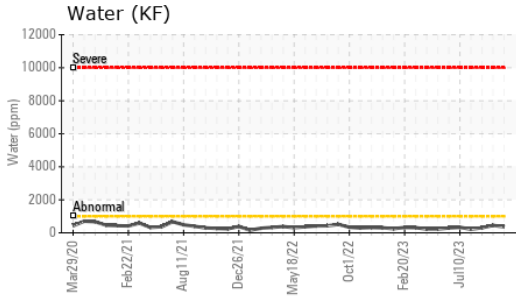
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	2	2	3
Sodium	ppm	ASTM D5185m	3	0	3
Potassium	ppm	ASTM D5185m >20	0	2	2
Water	%	ASTM D6304 >0.1	0.036	0.045	0.030
ppm Water	ppm	ASTM D6304 >1000	364.0	450.9	306.3

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.94	1.20	1.44



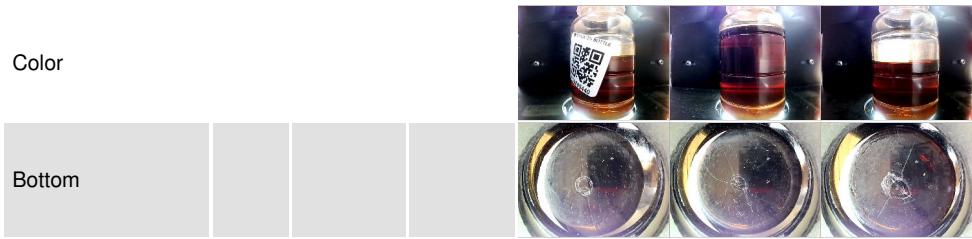
OIL ANALYSIS REPORT



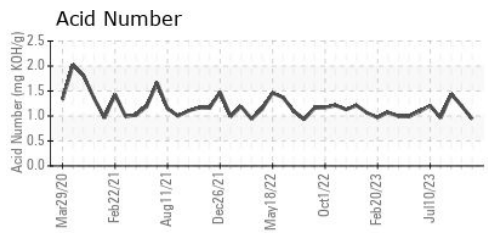
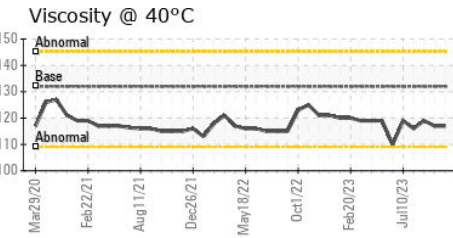
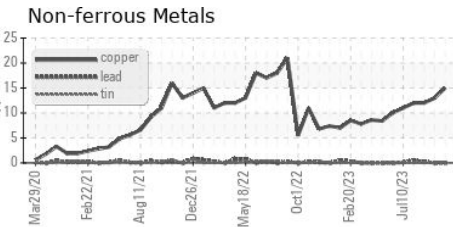
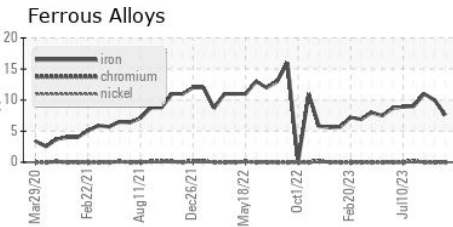
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 132	117	117	119

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0805440 **Received** : 06 Nov 2023
Lab Number : 05999087 **Diagnosed** : 07 Nov 2023
Unique Number : 10727447 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KF)

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 CATLETTSBURG, KY
 US 41169
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 cagumbert@marathonpetroleum.com
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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)