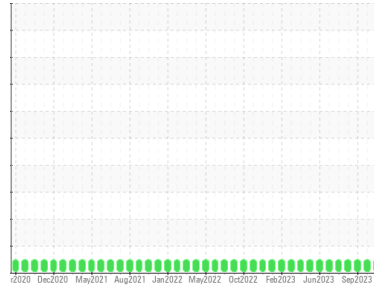




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
Tampa
 Machine Id
[Tampa] Oil - Port Reduction Gear
 Component
Port Reduction Gear
 Fluid
MOBIL DELVAC 1640 (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 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		WC0805339	WC0805338	WC0769428
Sample Date	Client Info		21 Nov 2023	25 Oct 2023	27 Sep 2023
Machine Age	hrs	Client Info	20055	19526	18858
Oil Age	hrs	Client Info	262	2202	1568
Oil Changed	Client Info		Changed	Not Changd	Not Changd
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	10	12	10
Chromium	ppm	ASTM D5185m >10	<1	<1	<1
Nickel	ppm	ASTM D5185m >10	0	<1	0
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >25	2	2	1
Lead	ppm	ASTM D5185m >100	0	<1	0
Copper	ppm	ASTM D5185m >50	10	21	19
Tin	ppm	ASTM D5185m >10	0	0	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	14	25	23
Barium	ppm	ASTM D5185m	0	5	0
Molybdenum	ppm	ASTM D5185m	37	40	41
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	179	196	215
Calcium	ppm	ASTM D5185m	2939	2668	2885
Phosphorus	ppm	ASTM D5185m	608	785	742
Zinc	ppm	ASTM D5185m	732	814	872
Sulfur	ppm	ASTM D5185m	6448	7133	6574

CONTAMINANTS

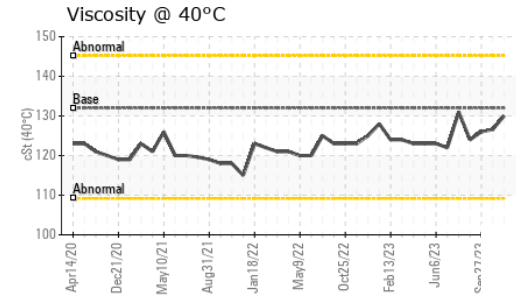
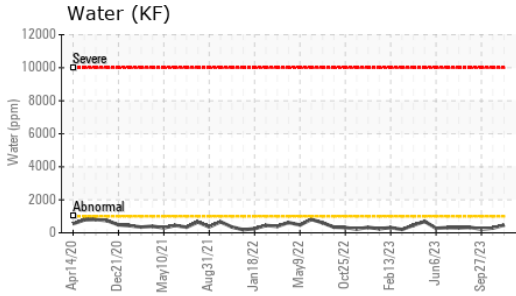
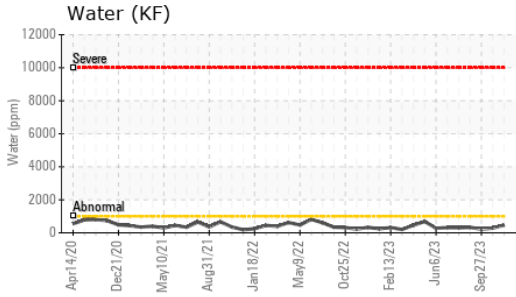
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	5	5	6
Sodium	ppm	ASTM D5185m	4	4	6
Potassium	ppm	ASTM D5185m >20	3	6	3
Water	%	ASTM D6304 >0.1	0.047	0.028	0.021
ppm Water	ppm	ASTM D6304 >1000	472	286.3	217.9

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.54	0.55	1.59



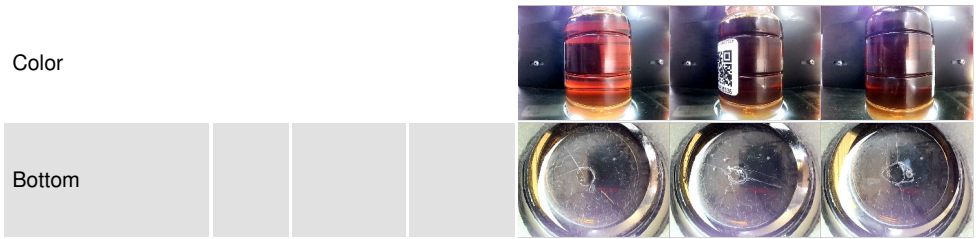
OIL ANALYSIS REPORT



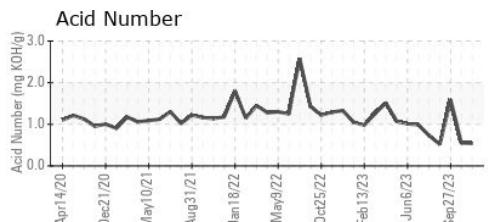
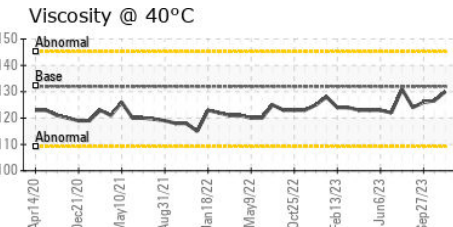
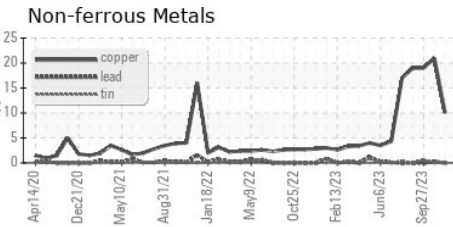
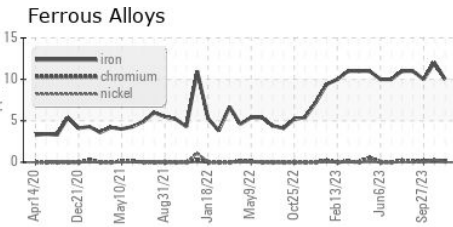
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	130	126.6	126

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0805339 **Received** : 08 Dec 2023
Lab Number : **06029476** **Diagnosed** : 11 Dec 2023
Unique Number : 10779267 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KF)

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 101 12TH ST
 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)