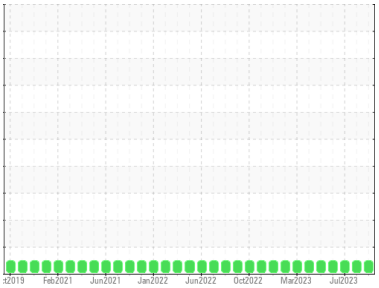
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
Nashville
Machine Id
[Nashville] Oil - Port Reduction Gear
Component
Port Reduction Gear
Fluid
GEAR OIL SAE 85W140 (35 GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. (Customer Sample Comment: Dparnell)

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		**WC0769336**	WC0769192	WC0769188
Sample Date		Client Info		**05 Sep 2023**	07 Aug 2023	10 Jul 2023
Machine Age	hrs	Client Info		**55820**	55297	54813
Oil Age	hrs	Client Info		**9621**	9238	8876
Oil Changed		Client Info		**Filtered**	Not Changd	Filtered
Sample Status				**NORMAL**	NORMAL	NORMAL

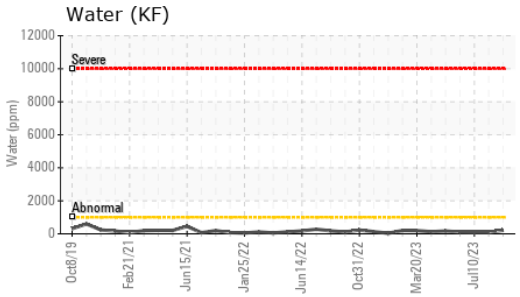
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	**15**	14	13
Chromium	ppm	ASTM D5185m	>10	**<1**	0	0
Nickel	ppm	ASTM D5185m	>10	**<1**	<1	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**0**	2	<1
Lead	ppm	ASTM D5185m	>100	**0**	0	0
Copper	ppm	ASTM D5185m	>50	**<1**	<1	<1
Tin	ppm	ASTM D5185m	>10	**<1**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	0	<1
Cadmium	ppm	ASTM D5185m		**<1**	0	0

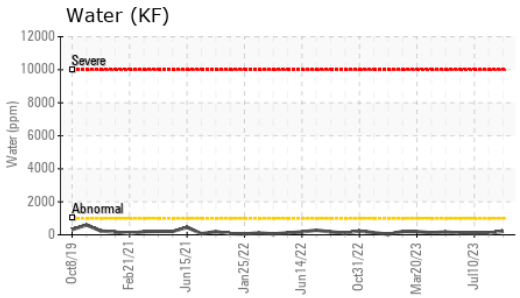
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	400	**40**	46	53
Barium	ppm	ASTM D5185m	200	**2**	0	0
Molybdenum	ppm	ASTM D5185m	12	**0**	<1	<1
Manganese	ppm	ASTM D5185m		**<1**	0	<1
Magnesium	ppm	ASTM D5185m	12	**4**	2	17
Calcium	ppm	ASTM D5185m	150	**41**	41	47
Phosphorus	ppm	ASTM D5185m	1650	**1053**	1095	1093
Zinc	ppm	ASTM D5185m	125	**22**	12	22
Sulfur	ppm	ASTM D5185m	22500	**8157**	9544	10374

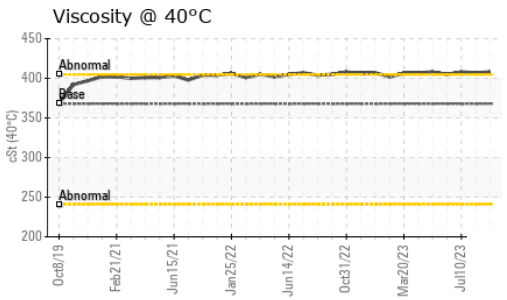
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**1**	1	<1
Sodium	ppm	ASTM D5185m		**0**	2	<1
Potassium	ppm	ASTM D5185m	>20	**2**	2	1
Water	%	ASTM D6304	>0.1	**0.021**	0.008	0.009
ppm Water	ppm	ASTM D6304	>1000	**217.2**	87.0	92.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	2.00	**1.46**	1.43	1.37

OIL ANALYSIS REPORT





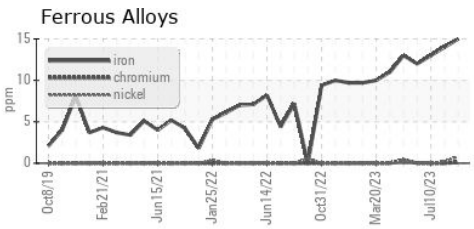


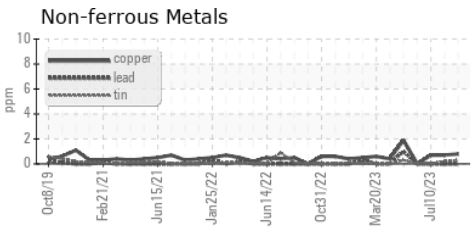
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**MODER**	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

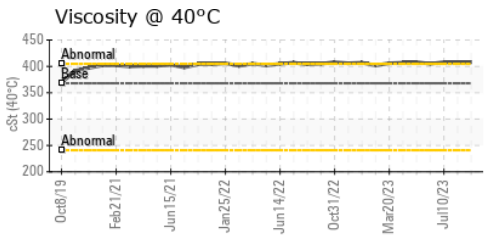
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	368	**408**	407	408

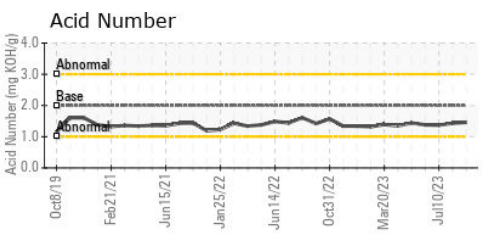
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0769336 **Received** : 25 Sep 2023
Lab Number : 05960715 **Diagnosed** : 27 Sep 2023
Unique Number : 10661928 **Diagnostician** : Don Baldridge
Test Package : IND 2 (Additional Tests: KF)

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: