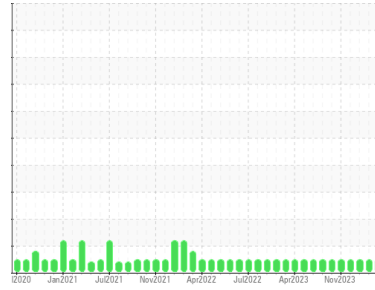




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**Speedway**

Machine Id

**[Speedway] Oil - Aft Genset**

Component

**Aft Genset**

Fluid

**SAE 30W (8 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Jd Ridout )

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

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

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0860101</b>	WC0860042	WC0845770
Sample Date	Client Info		<b>10 Apr 2024</b>	20 Mar 2024	03 Feb 2024
Machine Age	hrs	Client Info	<b>12094</b>	12140	11602
Oil Age	hrs	Client Info	<b>12067</b>	12033	11501
Oil Changed	Client Info		<b>Not Chngd</b>	Oil Added	Filtered
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>50	<b>31</b>	37	43
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>1</b>	1	<1
Lead	ppm	ASTM D5185m	>17	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>70	<b>0</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>8</b>	7	6
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>66</b>	65	65
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1463</b>	1536	1559
Calcium	ppm	ASTM D5185m		<b>1158</b>	1179	1197
Phosphorus	ppm	ASTM D5185m		<b>1129</b>	1133	1119
Zinc	ppm	ASTM D5185m		<b>1350</b>	1397	1398
Sulfur	ppm	ASTM D5185m		<b>3770</b>	3889	3309

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	6	7
Sodium	ppm	ASTM D5185m		<b>12</b>	13	13
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Water	%	ASTM D6304	>0.1	<b>NEG</b>	NEG	NEG

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		<b>0.2</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.6</b>	12.7	13.3
Sulfation	Abs.1mm	*ASTM D7415	>30	<b>22.1</b>	22.6	23.1

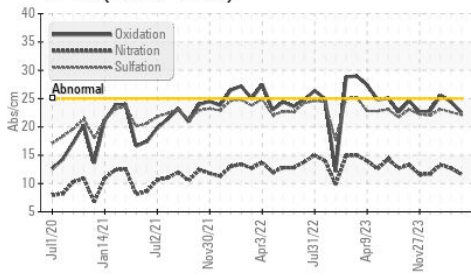
## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs.1mm	*ASTM D7414	>25	<b>22.5</b>	24.4	25.6
Base Number (BN)	mg KOH/g	ASTM D2896		<b>11.90</b>	11.41	11.34

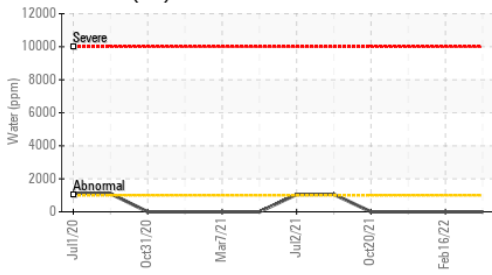


# OIL ANALYSIS REPORT

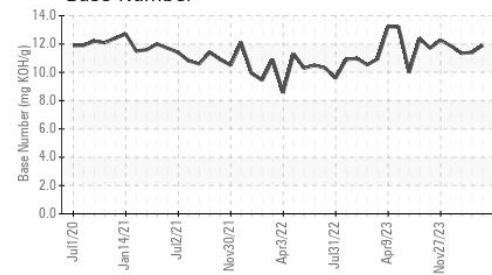
FT-IR (Direct Trend)



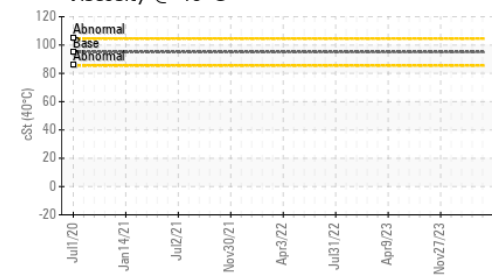
Water (KF)



Base Number



Viscosity @ 40°C



Base Number

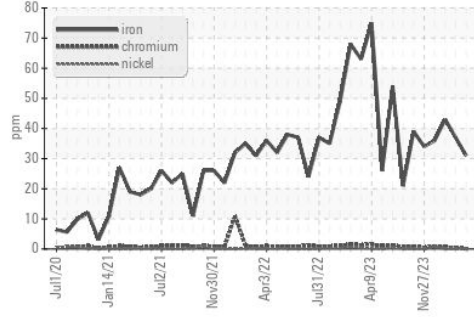


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

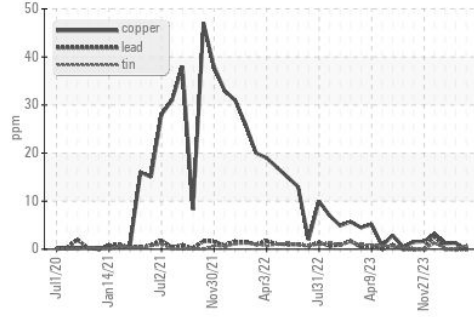
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.5	13.0	13.1

## GRAPHS

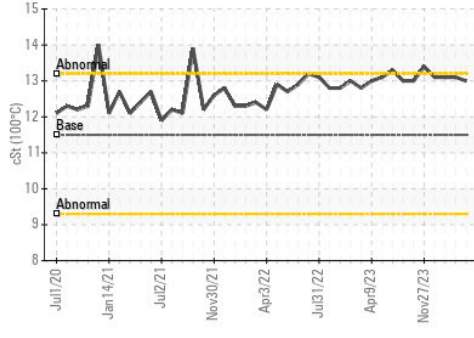
Ferrous Alloys



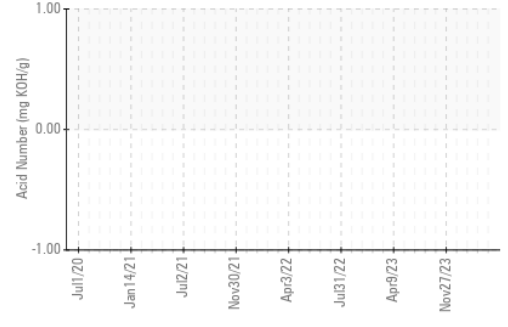
Non-ferrous Metals



Viscosity @ 100°C



Acid Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0860101  
**Lab Number** : 06157869  
**Unique Number** : 10993292  
**Test Package** : IND 2 ( Additional Tests: KF, KV40, TAN Man )  
**Received** : 23 Apr 2024  
**Tested** : 25 Apr 2024  
**Diagnosed** : 25 Apr 2024 - Sean Felton

**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)