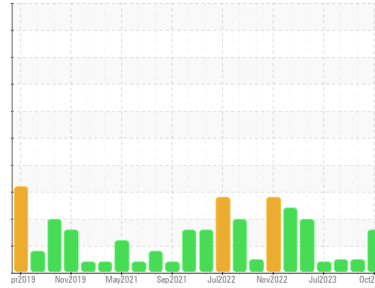




# PROBLEM SUMMARY

Sample Rating Trend



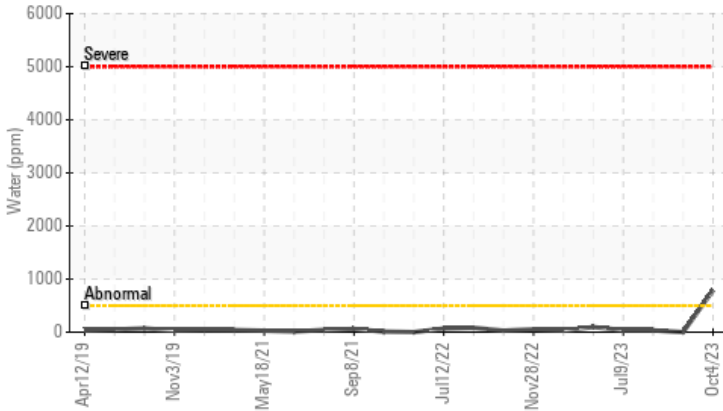
**WATER**



Area  
**Paul G. Blazer**  
 Machine Id  
**[Paul G. Blazer] Hydraulic - Flanking**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (150 GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Water (KF)



## RECOMMENDATION

No corrective action is recommended at this time.  
 Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL
Water	%	ASTM D6304	>0.05	▲ <b>0.078</b>	0.00	0.003
ppm Water	ppm	ASTM D6304	>500	▲ <b>788.3</b>	0.00	34.2

Customer Id: MARCAT  
 Sample No.: WC0719544  
 Lab Number: 05978236  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 31 Aug 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 07 Aug 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 09 Jul 2023 Diag: Doug Bogart

VIS DEBRIS



We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

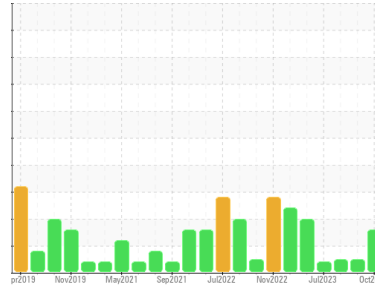
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Area  
**Paul G. Blazer**  
 Machine Id  
**[Paul G. Blazer] Hydraulic - Flanking**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (150 GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

### 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		<b>WC0719544</b>	WC0621765	WC0719301
Sample Date	Client Info		<b>04 Oct 2023</b>	31 Aug 2023	07 Aug 2023
Machine Age	hrs	Client Info	<b>2147</b>	1438	909
Oil Age	hrs	Client Info	<b>2147</b>	1438	909
Oil Changed	Client Info		<b>N/A</b>	Not Changd	N/A
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>1</b>	2	1
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >20	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	0	0
Lead	ppm	ASTM D5185m >20	<b>0</b>	0	2
Copper	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	4
Tin	ppm	ASTM D5185m >20	<b>0</b>	0	<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 5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 5	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m 5	<b>0</b>	0	1
Manganese	ppm	ASTM D5185m	<b>0</b>	0	2
Magnesium	ppm	ASTM D5185m 25	<b>3</b>	2	0
Calcium	ppm	ASTM D5185m 200	<b>6</b>	22	2
Phosphorus	ppm	ASTM D5185m 300	<b>38</b>	39	18
Zinc	ppm	ASTM D5185m 370	<b>42</b>	55	0
Sulfur	ppm	ASTM D5185m 2500	<b>137</b>	168	105

## CONTAMINANTS

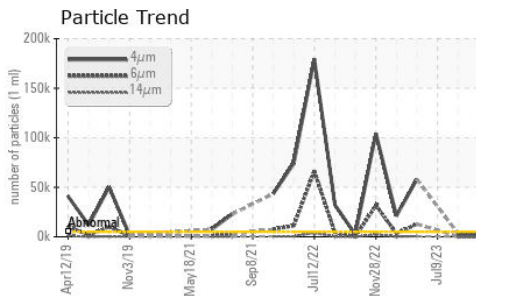
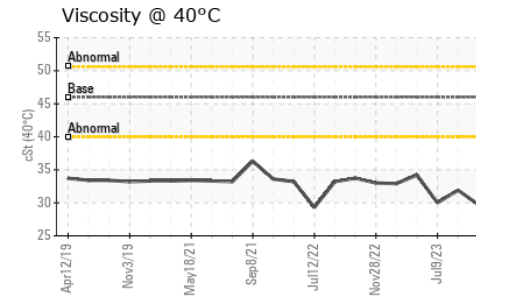
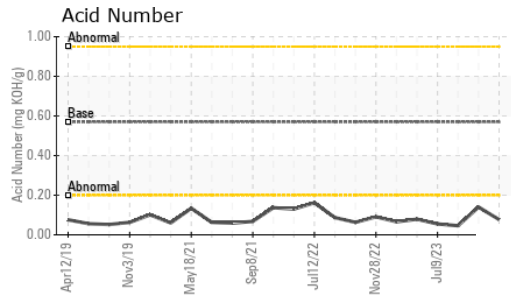
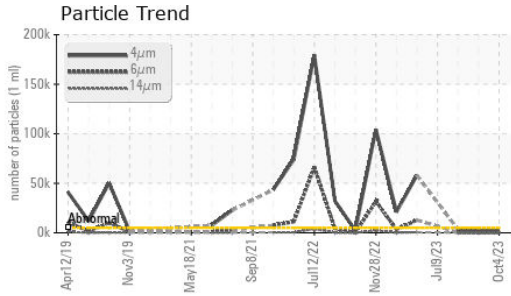
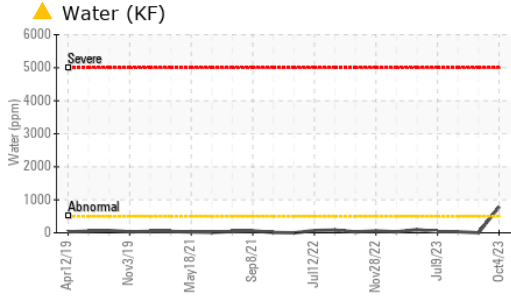
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>0</b>	0	1
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	5
Potassium	ppm	ASTM D5185m >20	<b>0</b>	2	3
Water	%	ASTM D6304 >0.05	<b>▲ 0.078</b>	0.00	0.003
ppm Water	ppm	ASTM D6304 >500	<b>▲ 788.3</b>	0.00	34.2

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>1633</b>	1718	3267
Particles >6µm	ASTM D7647	>1300	<b>260</b>	138	382
Particles >14µm	ASTM D7647	>160	<b>16</b>	7	9
Particles >21µm	ASTM D7647	>40	<b>5</b>	1	2
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>18/15/11</b>	18/14/10	19/16/10

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.57	<b>0.077</b>	0.14	0.046



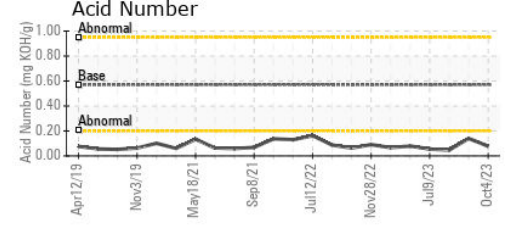
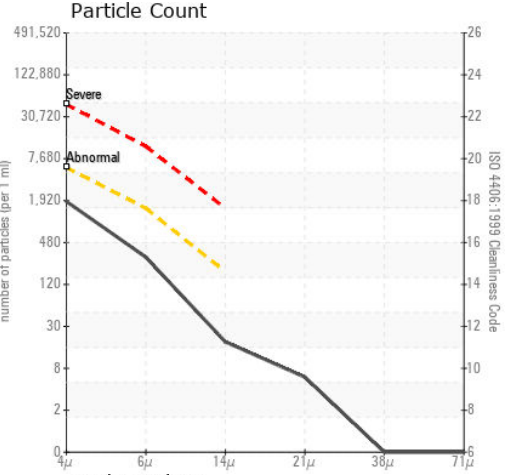
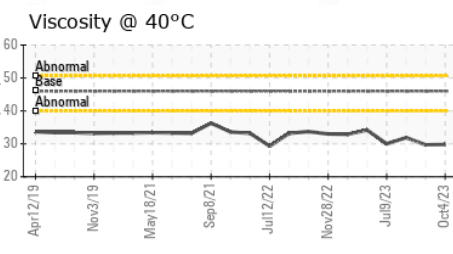
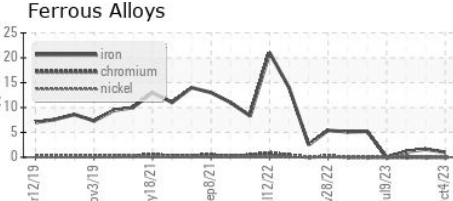
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	29.8	29.7	31.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0719544 **Received** : 13 Oct 2023  
**Lab Number** : 05978236 **Diagnosed** : 17 Oct 2023  
**Unique Number** : 10695531 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF )

**MARATHON PETROLEUM CO.**  
 101 12TH ST  
 CATLETTSBURG, KY  
 US 41169  
 Contact: CORY GUMBERT  
 cagumbert@marathonpetroleum.com  
 T: (606)585-3950  
 F: x:

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)