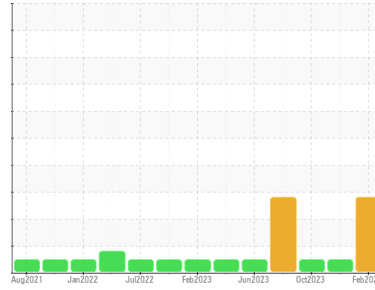




# COOLANT REPORT

Sample Rating Trend



OFF SPEC



Area  
**Martinsville**  
 Machine Id  
**[Martinsville] Coolant - Starboard Main Engine (Jacket)**  
 Component  
**Coolant**  
 Fluid  
**CATERPILLAR ELC (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend that you perform a partial drain and top off with straight antifreeze to increase level of glycol.

### Corrosion

All metal levels are normal indicating no corrosion in the cooling system.

### Contaminants

There is no indication of any contamination in the coolant.

### Coolant Condition

Carboxylate test failed. The glycol level is low. The pH level of this fluid is within the acceptable limits.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0805451</b>	WC0845972	WC0769053
Sample Date	Client Info		<b>15 Feb 2024</b>	27 Nov 2023	03 Oct 2023
Machine Age	hrs	Client Info	<b>18719</b>	18719	17533
Oil Age	hrs	Client Info	<b>16703</b>	18719	201
Oil Changed	Client Info		<b>N/A</b>	N/A	Not Changd
Sample Status			<b>MARGINAL</b>	NORMAL	NORMAL

## PHYSICAL TEST RESULTS

	method	limit/base	current	history1	history2
Glycol Type	FT-IR		---	---	---
Specific Gravity	*ASTM D1298		<b>1.041</b>	1.052	1.051
pH	Scale 0-14 ASTM D1287		<b>8.81</b>	8.64	8.80
Nitrites	ppm AP-053:2009		<b>560</b>	676	524
Reserve Alkalinity	Scale 0-20 *ASTM D1121		---	---	---
Percentage Glycol	% ASTM D3321		<b>▲ 30.7</b>	38.3	37.8
Freezing Point	°F ASTM D3321		<b>4</b>	-9	-7
Total Dissolved Solids			<b>223.5</b>	250.0	267.5
Carboxylate			<b>fail</b>	fail	fail

## CORROSION INHIBITORS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D6130	0	<b>32</b>	6	<1
Phosphorus	ppm ASTM D6130	0	<b>0</b>	4	1
Boron	ppm ASTM D6130	0	<b>43</b>	1	0
Molybdenum	ppm ASTM D6130	950	<b>344</b>	422	555

## CORROSION

	method	limit/base	current	history1	history2
Iron	ppm ASTM D6130	>15	<b>6</b>	6	9
Aluminum	ppm ASTM D6130	>10	<b>0</b>	0	<1
Copper	ppm ASTM D6130	>10	<b>&lt;1</b>	1	<1
Lead	ppm ASTM D6130	>10	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D6130	>10	<b>0</b>	<1	1
Zinc	ppm ASTM D6130		<b>0</b>	<1	0

## CONTAMINANTS

	method	limit/base	current	history1	history2
Chlorine	ppm ASTM D6130		<b>21</b>	15	11

## CARRIER SALTS

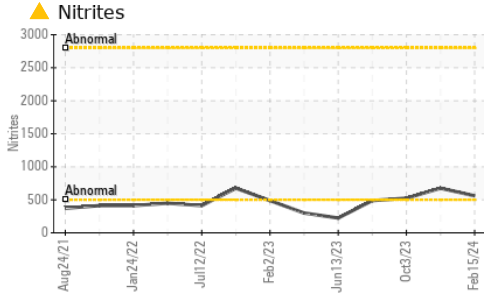
	method	limit/base	current	history1	history2
Sodium	ppm ASTM D6130		<b>2655</b>	2882	3648
Potassium	ppm ASTM D6130		<b>112</b>	64	<1

## SCALE POTENTIAL

	method	limit/base	current	history1	history2
Calcium	ppm ASTM D6130		<b>14</b>	5	2
Magnesium	ppm ASTM D6130		<b>4</b>	4	<1

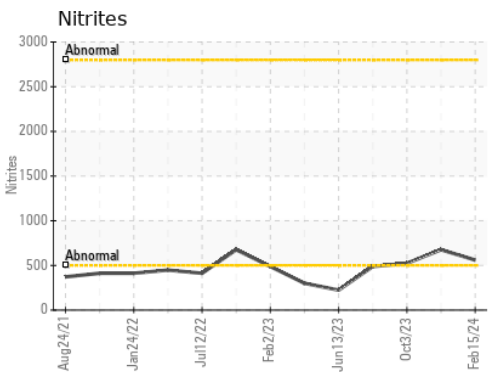
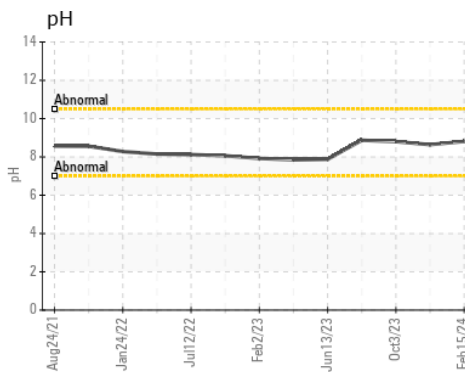
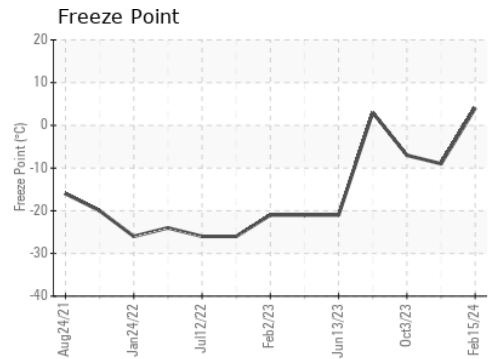
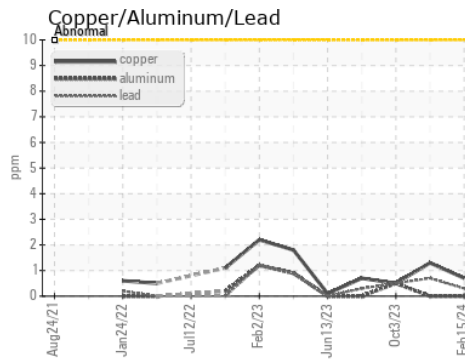
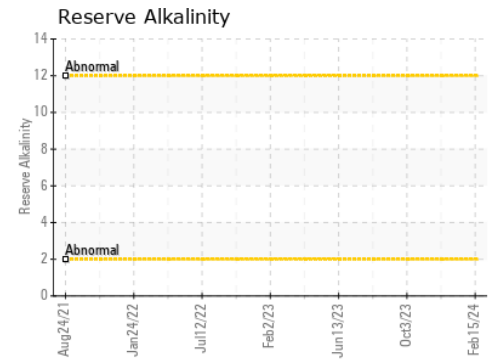
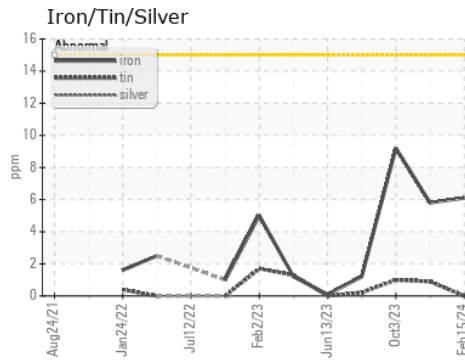


# COOLANT REPORT



VISUAL	method	limit/base	current	history1	history2
Coolant Color	*Visual		Red	Red	Red
Coolant Appearance	*Visual	Clear	normal	normal	normal
Color					
Bottom					

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0805451

Lab Number : 06122873

Unique Number : 10937024

Test Package : COOL- ( Additional Tests: BoilingPoint, COOL, GlycolType, ICP, KF )

Received : 19 Mar 2024

Tested : 22 Mar 2024

Diagnosed : 22 Mar 2024 - Jonathan Hester

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)