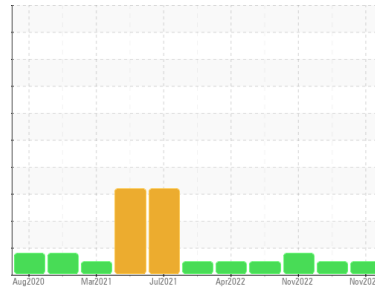




# COOLANT REPORT

Sample Rating Trend



**NORMAL**



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

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. The fluid is suitable for further service.

### 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 acceptable. The pH level of this fluid is within the acceptable limits.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0805235</b>	WC0683262	WC0683344
Sample Date	Client Info			<b>27 Nov 2023</b>	13 Jun 2023	27 Nov 2022
Machine Age	hrs	Client Info		<b>0</b>	0	50768
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Not Chngd</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

PHYSICAL TEST RESULTS		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		<b>1.054</b>	1.054	1.054
pH	Scale 0-14	ASTM D1287		<b>8.68</b>	8.81	8.87
Nitrites	ppm	AP-053:2009		<b>488</b>	336	524
Reserve Alkalinity	Scale 0-20	*ASTM D1121		<b>---</b>	---	---
Percentage Glycol	%	ASTM D3321		<b>40.0</b>	39.9	40.0
Freezing Point	°F	ASTM D3321		<b>-13</b>	-11	-13
Total Dissolved Solids				<b>268.5</b>	264.0	265.5
Carboxylate				<b>fail</b>	fail	pass

CORROSION INHIBITORS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D6130	0	<b>426</b>	4	26
Phosphorus	ppm	ASTM D6130	0	<b>0</b>	0	0
Boron	ppm	ASTM D6130	0	<b>22</b>	33	72
Molybdenum	ppm	ASTM D6130	950	<b>350</b>	787	817

CORROSION		method	limit/base	current	history1	history2
Iron	ppm	ASTM D6130	>15	<b>0</b>	0	2
Aluminum	ppm	ASTM D6130	>10	<b>0</b>	0	<1
Copper	ppm	ASTM D6130	>10	<b>&lt;1</b>	<1	2
Lead	ppm	ASTM D6130	>10	<b>&lt;1</b>	0	1
Tin	ppm	ASTM D6130	>10	<b>&lt;1</b>	0	1
Zinc	ppm	ASTM D6130		<b>0</b>	0	<1

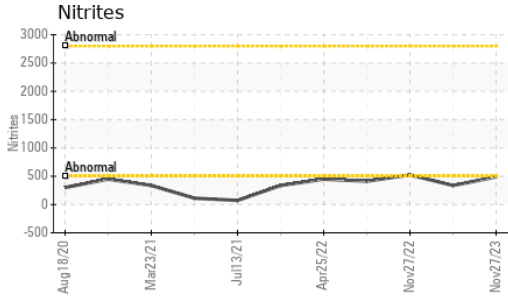
CONTAMINANTS		method	limit/base	current	history1	history2
Chlorine	ppm	ASTM D6130		<b>12</b>	0	46

CARRIER SALTS		method	limit/base	current	history1	history2
Sodium	ppm	ASTM D6130		<b>2933</b>	5081	5726
Potassium	ppm	ASTM D6130		<b>6</b>	0	19

SCALE POTENTIAL		method	limit/base	current	history1	history2
Calcium	ppm	ASTM D6130		<b>7</b>	18	14
Magnesium	ppm	ASTM D6130		<b>3</b>	3	4

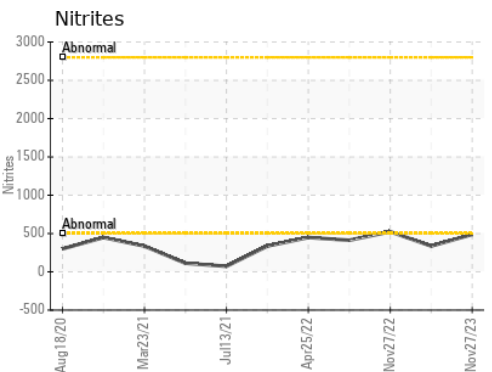
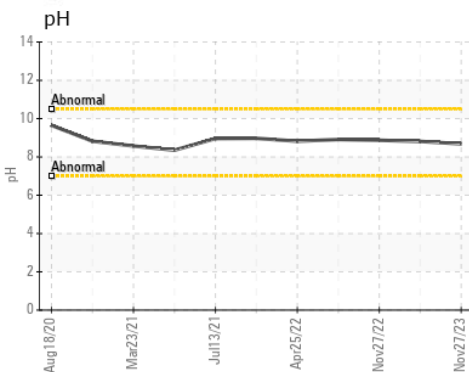
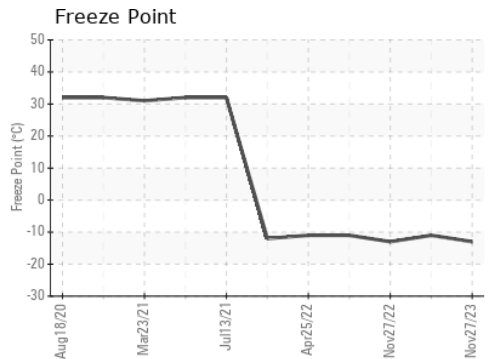
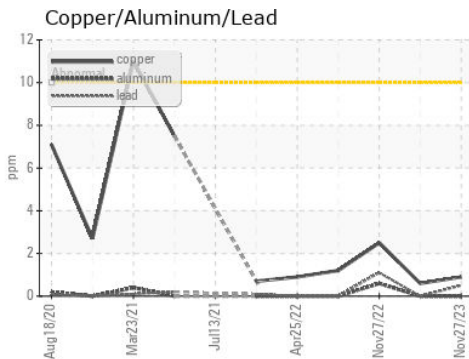
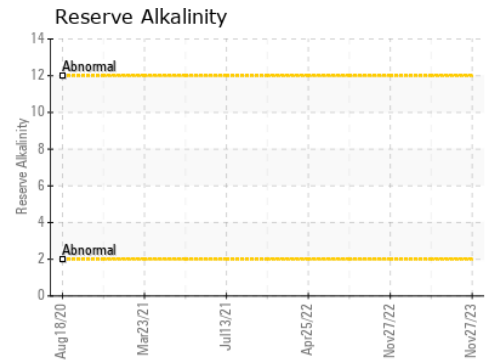
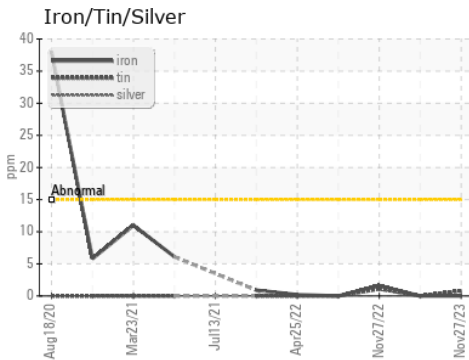


# COOLANT REPORT



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

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0805235 **Received** : 06 Dec 2023  
**Lab Number** : 06026969 **Diagnosed** : 14 Dec 2023  
**Unique Number** : 10776760 **Diagnostician** : Jonathan Hester  
**Test Package** : COOL- ( Additional Tests: COOL, ICP, 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)