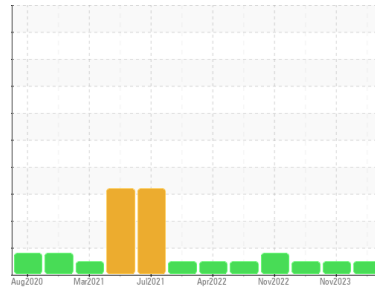




COOLANT REPORT

Sample Rating Trend



NORMAL



Area

Nashville

Machine Id

[Nashville] Coolant - Starboard Main Engine

Component

Coolant

Fluid

CAT EXTENDED LIFE COOLANT (ELC) (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The fluid is suitable for further service. (Customer Sample Comment: 2000 hr main engine 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		WC0846040	WC0805235	WC0683262
Sample Date	Client Info		29 Feb 2024	27 Nov 2023	13 Jun 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Chngd	Not Chngd	N/A
Sample Status			NORMAL	NORMAL	NORMAL

PHYSICAL TEST RESULTS

	method	limit/base	current	history1	history2
Glycol Type	FT-IR		---	---	---
Specific Gravity	*ASTM D1298		1.042	1.054	1.054
pH	Scale 0-14	ASTM D1287	8.76	8.68	8.81
Nitrites	ppm	AP-053:2009	788	488	336
Reserve Alkalinity	Scale 0-20	*ASTM D1121	---	---	---
Percentage Glycol	%	ASTM D3321	31.1	40.0	39.9
Freezing Point	°F	ASTM D3321	3	-13	-11
Total Dissolved Solids			303.0	268.5	264.0
Carboxylate			fail	fail	fail

CORROSION INHIBITORS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D6130	0	5	426	4
Phosphorus	ppm	ASTM D6130	0	2	0	0
Boron	ppm	ASTM D6130	0	20	22	33
Molybdenum	ppm	ASTM D6130	950	400	350	787

CORROSION

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

CONTAMINANTS

	method	limit/base	current	history1	history2	
Chlorine	ppm	ASTM D6130		18	12	0

CARRIER SALTS

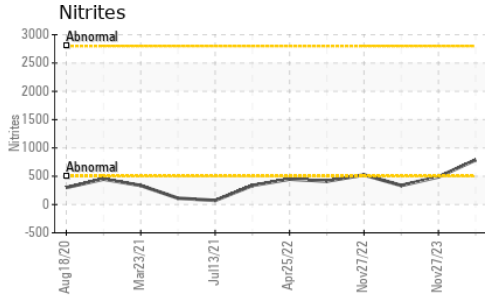
	method	limit/base	current	history1	history2	
Sodium	ppm	ASTM D6130		3779	2933	5081
Potassium	ppm	ASTM D6130		11	6	0

SCALE POTENTIAL

	method	limit/base	current	history1	history2	
Calcium	ppm	ASTM D6130		6	7	18
Magnesium	ppm	ASTM D6130		3	3	3

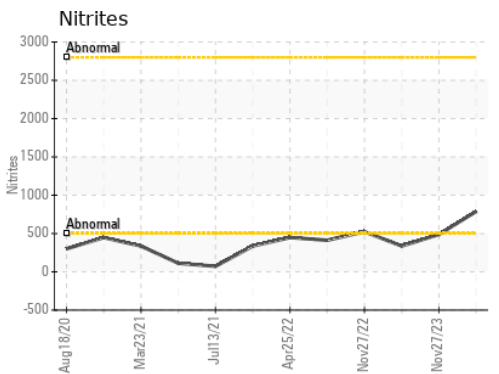
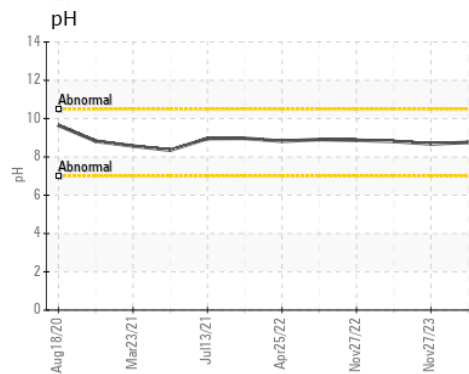
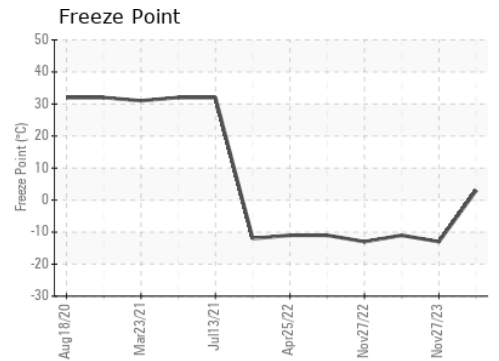
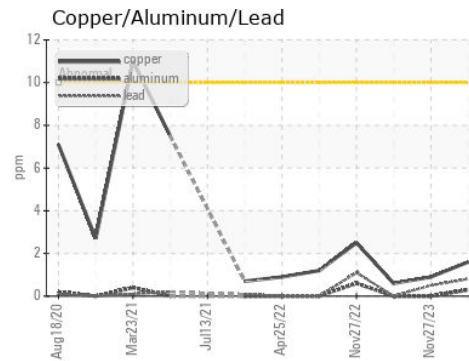
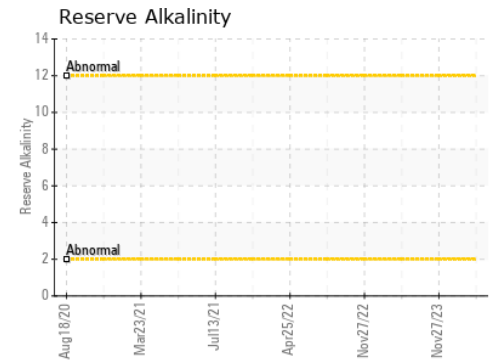
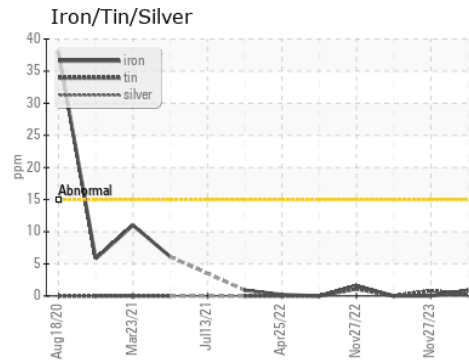


COOLANT REPORT



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. : WC0846040
Lab Number : 06140437
Unique Number : 10965245
Test Package : COOL- (Additional Tests: BoilingPoint, COOL, GlycolType, ICP, KF)

Received : 05 Apr 2024
Tested : 10 Apr 2024
Diagnosed : 10 Apr 2024 - Jonathan Hester

MARATHON PETROLEUM CO.
 101 12TH ST
 CATLETTSBURG, KY
 US 41169

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: CORY GUMBERT
 cagumbert@marathonpetroleum.com

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

T: (606)585-3950

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: x: