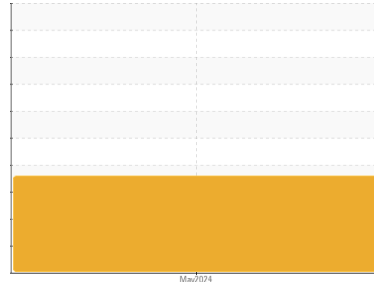




COOLANT REPORT

Sample Rating Trend



OFF SPEC



Area

Patoka

Machine Id

[Patoka] Coolant - Starboard Main Engine (Jacket)

Component

Coolant

Fluid

{not provided} (35 GAL)

DIAGNOSIS

Recommendation

We recommend drain/flush system, and refill with 50/50 antifreeze water mixture. We advise that you replenish the supplemental coolant additives (SCAs) and add per manufacturer's recommendations.

Corrosion

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

Contaminants

Sediment present.

Coolant Condition

The glycol level is lower than acceptable. The nitrite 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		WC0860028	---	---
Sample Date	Client Info		05 May 2024	---	---
Machine Age	hrs	Client Info	44859	---	---
Oil Age	hrs	Client Info	44859	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ABNORMAL	---	---

PHYSICAL TEST RESULTS

	method	limit/base	current	history1	history2
Glycol Type	FT-IR		---	---	---
Specific Gravity	*ASTM D1298		1.038	---	---
pH	Scale 0-14	ASTM D1287	7.25	---	---
Nitrites	ppm	AP-053:2009	712	---	---
Reserve Alkalinity	Scale 0-20	*ASTM D1121	---	---	---
Percentage Glycol	%	ASTM D3321	▲ 28.5	---	---
Freezing Point	°F	ASTM D3321	7	---	---
Total Dissolved Solids			224.5	---	---
Carboxylate			fail	---	---

CORROSION INHIBITORS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D6130	9	---	---
Phosphorus	ppm	ASTM D6130	0	---	---
Boron	ppm	ASTM D6130	0	---	---
Molybdenum	ppm	ASTM D6130	230	---	---

CORROSION

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

CONTAMINANTS

	method	limit/base	current	history1	history2
Chlorine	ppm	ASTM D6130		76	---

CARRIER SALTS

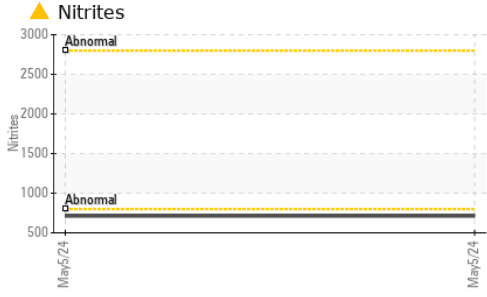
	method	limit/base	current	history1	history2
Sodium	ppm	ASTM D6130		2470	---
Potassium	ppm	ASTM D6130		16	---


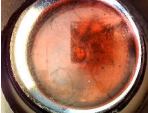
SCALE POTENTIAL

	method	limit/base	current	history1	history2
Calcium	ppm	ASTM D6130		15	---
Magnesium	ppm	ASTM D6130		20	---

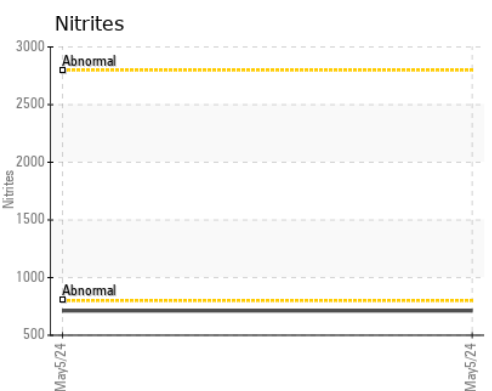
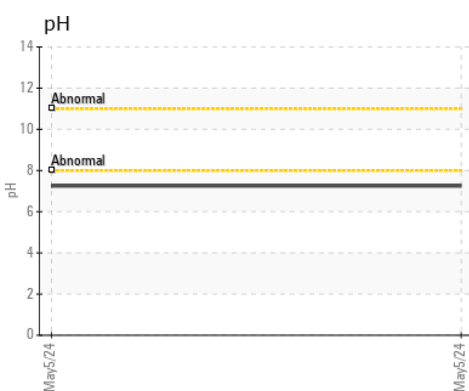
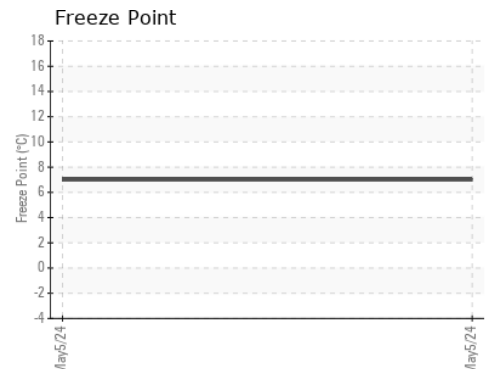
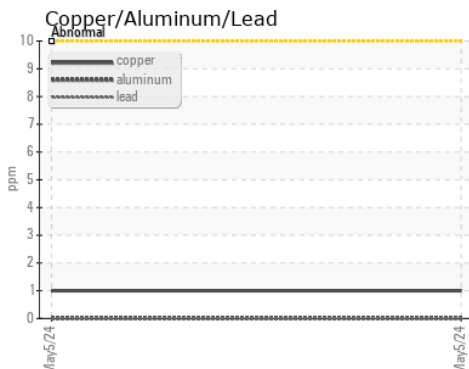
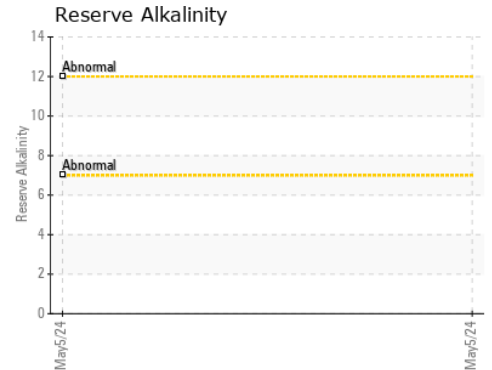
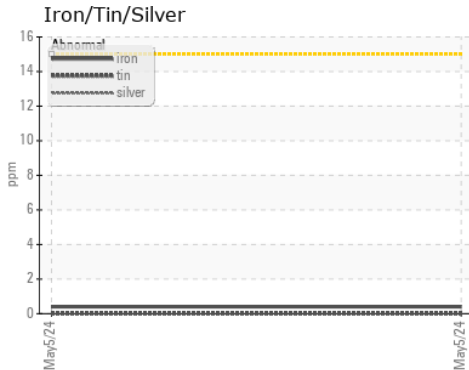


COOLANT REPORT



VISUAL	method	limit/base	current	history1	history2
Coolant Color	*Visual		Red	---	---
Coolant Appearance	*Visual	Clear	▲ sediment	---	---
Color				no image	no image
Bottom				no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0860028 **Received** : 16 May 2024
Lab Number : **06181899** **Tested** : 24 May 2024
Unique Number : 11033225 **Diagnosed** : 24 May 2024 - Jonathan Hester
Test Package : COOL- (Additional Tests: BoilingPoint, COOL, GlycolType, ICP, KF)

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. T: (606)585-3950
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. F: x:
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)