



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**RAIL LOADING WEST**  
 Component  
**Gearbox**  
 Fluid  
**CHEVRON MEROPA 220 (--- QTS)**

## RECOMMENDATION

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

## WEAR

All component wear rates are normal.

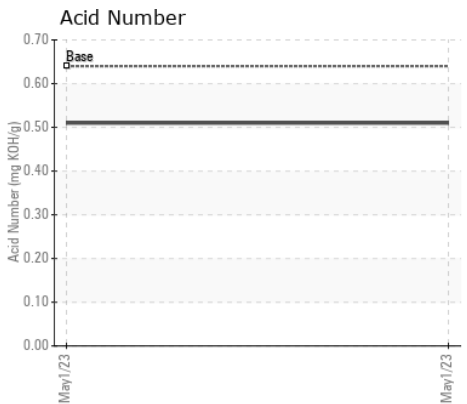
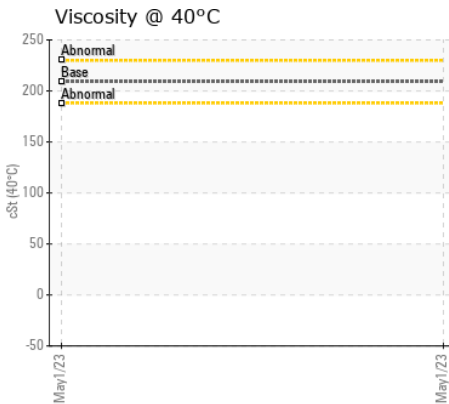
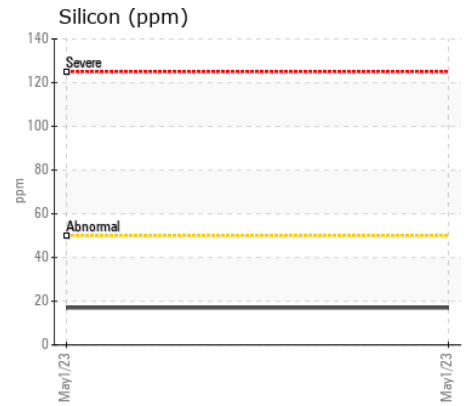
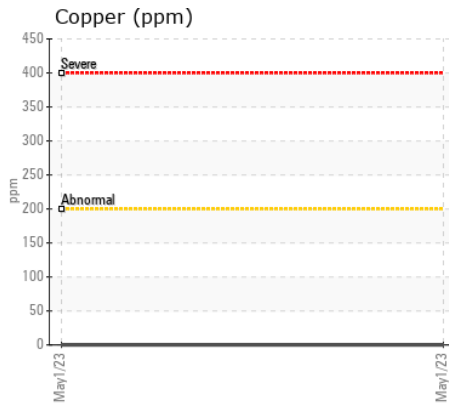
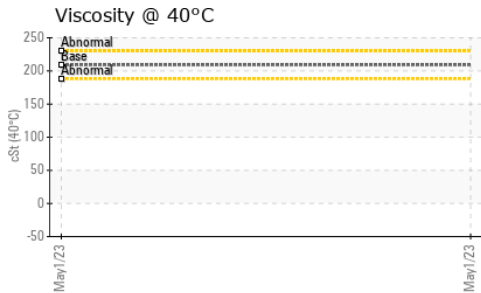
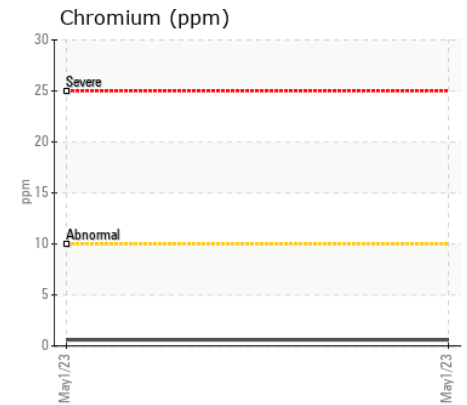
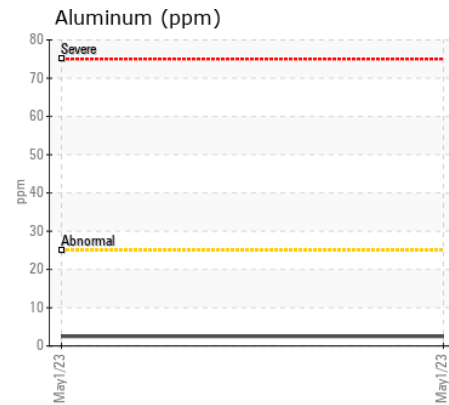
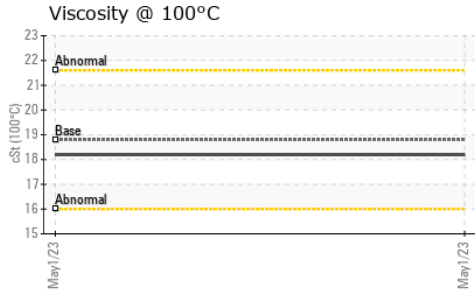
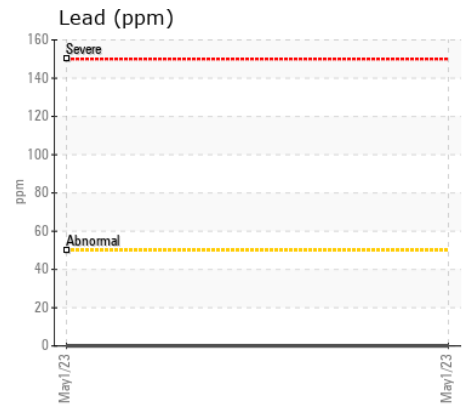
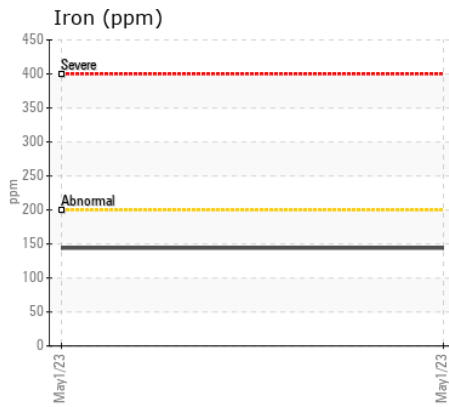
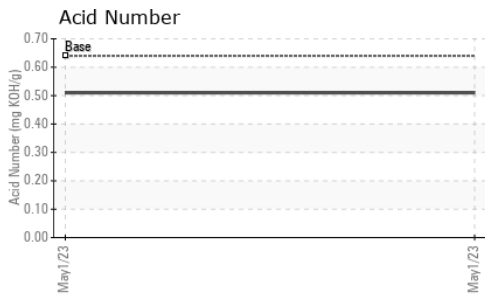
## CONTAMINATION

There is no indication of any contamination in the oil.

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05847274	---	---
Sample Date		Client Info		01 May 2023	---	---
Machine Age	yrs	Client Info		4	---	---
Oil Age	yrs	Client Info		4	---	---
Filter Age	yrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				<b>NORMAL</b>	---	---
Iron	ppm	ASTM D5185m	>200	144	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	2	---	---
Lead	ppm	ASTM D5185m	>50	0	---	---
Copper	ppm	ASTM D5185m	>200	0	---	---
Tin	ppm	ASTM D5185m	>10	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>50	17	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185m		1	---	---
Boron	ppm	ASTM D5185m	40	4	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		<1	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m		<1	---	---
Calcium	ppm	ASTM D5185m		32	---	---
Phosphorus	ppm	ASTM D5185m	270	238	---	---
Zinc	ppm	ASTM D5185m		54	---	---
Sulfur	ppm	ASTM D5185m	8600	13874	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.64	0.51	---	---
Visc @ 100°C	cSt	ASTM D445	18.8	18.2	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR05847274  
**Lab Number** : 05847274  
**Unique Number** : 10471381  
**Test Package** : MOB 2 ( Additional Tests: KV100 )

**Received** : 15 May 2023  
**Tested** : 17 May 2023  
**Diagnosed** : 17 May 2023 - Doug Bogart

**H & S SERVICES**  
 5521 E SHARP  
 SPOKANE VALLEY, WA  
 US 99218  
 Contact: RON GROGAN

To discuss this sample report, contact Customer Service at 1-800-827-0711.

\* - 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)

T:  
F: