



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
HYSTER HYSTER

Component
Gasoline Engine

Fluid
TRC MOLY PRO-SPEC IV XP 15W40 (6 QTS)

RECOMMENDATION

We advise that you check for the source of water entry. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please note that there was too much water present in the oil to perform a viscosity test.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06225352	---	---
Sample Date		Client Info		27 Jun 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		105	---	---
Filter Age	hrs	Client Info		105	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	20	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>5	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>40	2	---	---
Lead	ppm	ASTM D5185m	>50	10	---	---
Copper	ppm	ASTM D5185m	>155	7	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

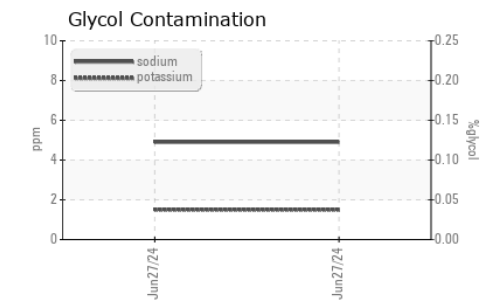
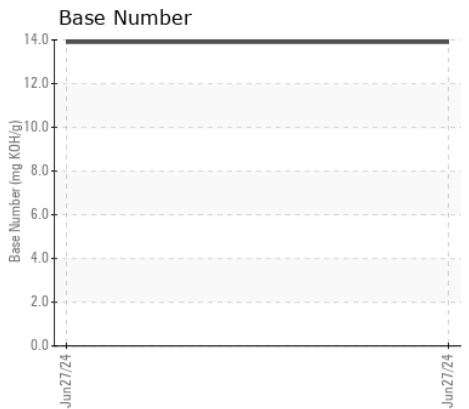
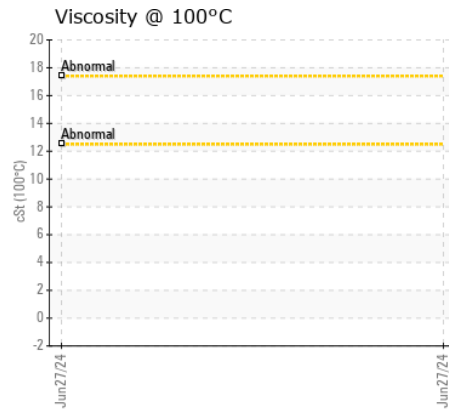
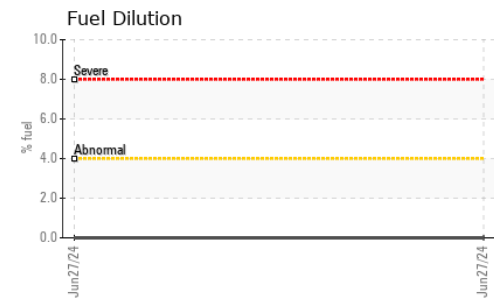
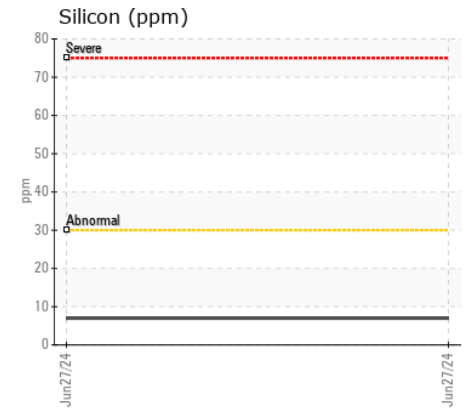
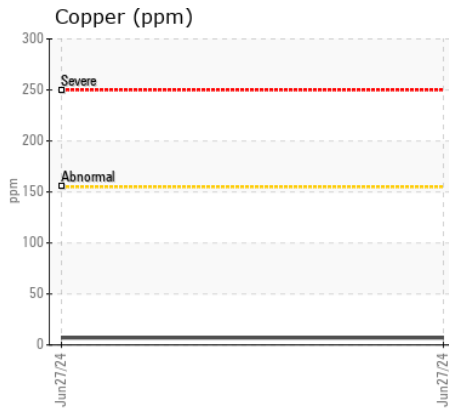
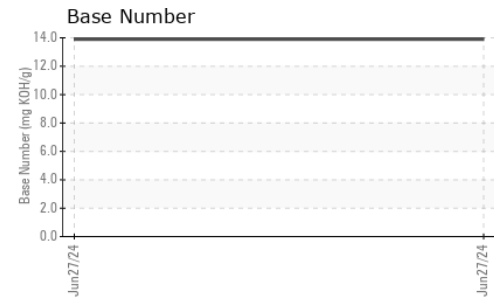
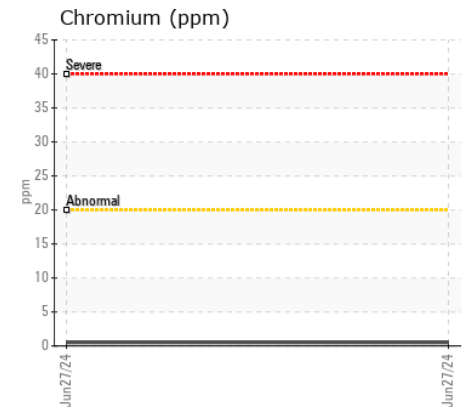
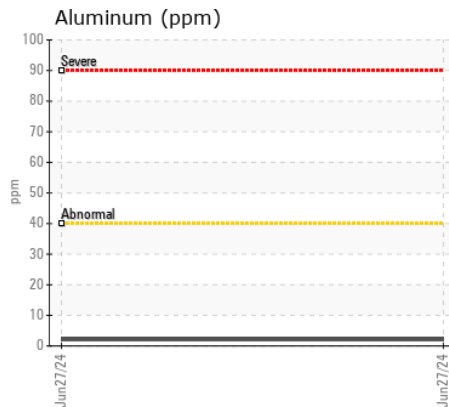
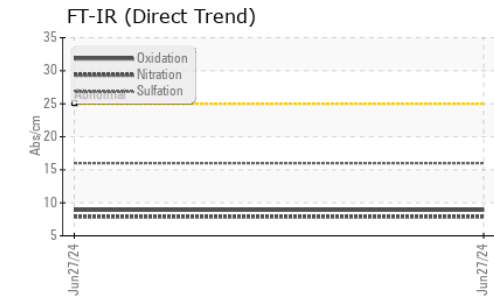
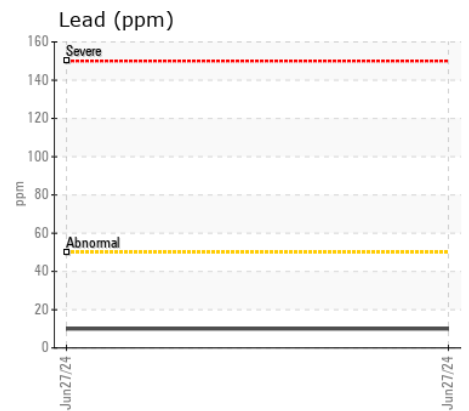
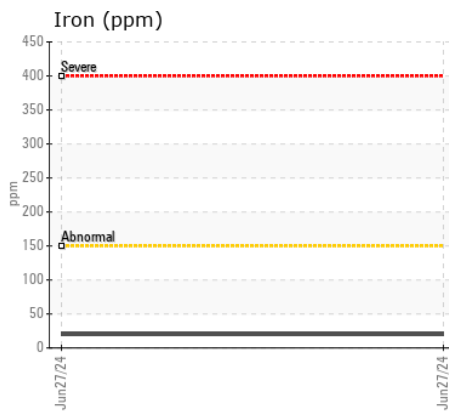
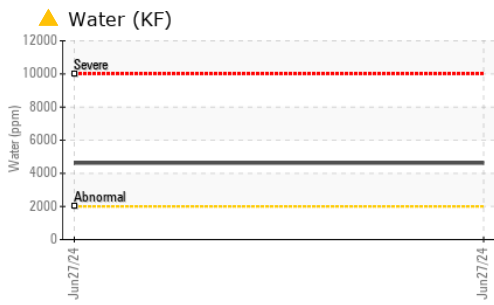
There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>30	7	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel	%	ASTM D3524	>4.0	<1.0	---	---
Water	%	ASTM D6304	>0.2	▲ 0.462	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 4620	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.0	---	---
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	▲ 0.2%	---	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>400	5	---	---
Boron	ppm	ASTM D5185m		17	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		81	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		96	---	---
Calcium	ppm	ASTM D5185m		3537	---	---
Phosphorus	ppm	ASTM D5185m		932	---	---
Zinc	ppm	ASTM D5185m		1065	---	---
Sulfur	ppm	ASTM D5185m		5794	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.9	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		13.90	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06225352 **Received** : 01 Jul 2024
Lab Number : 06225352 **Tested** : 03 Jul 2024
Unique Number : 11103549 **Diagnosed** : 03 Jul 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, KF, PercentFuel)

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)

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