



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
GK MACHINE 9434

Component
Hydrostatic

Fluid
TRC UNIVERSAL TORQUE FLUID (50 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06100894	---	---
Sample Date		Client Info		16 Feb 2024	---	---
Machine Age	hrs	Client Info		2531	---	---
Oil Age	hrs	Client Info		1000	---	---
Filter Age	hrs	Client Info		500	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	3	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m		0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>50	2	---	---
Lead	ppm	ASTM D5185m	>50	0	---	---
Copper	ppm	ASTM D5185m	>200	3	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

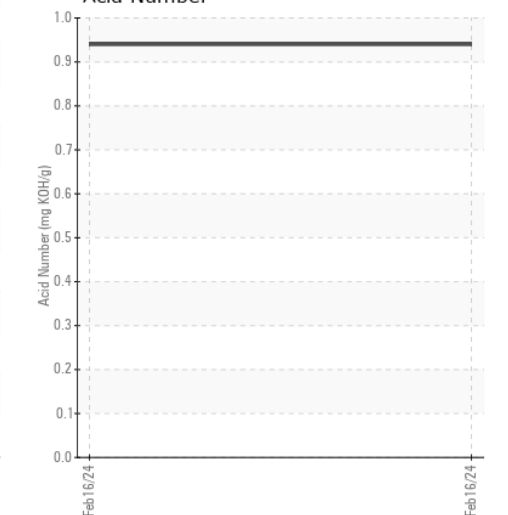
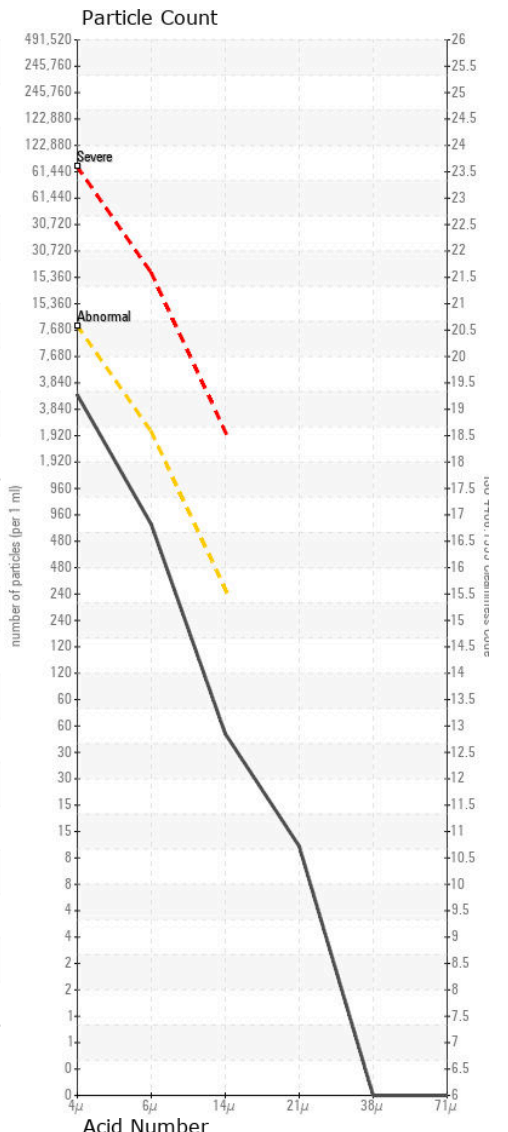
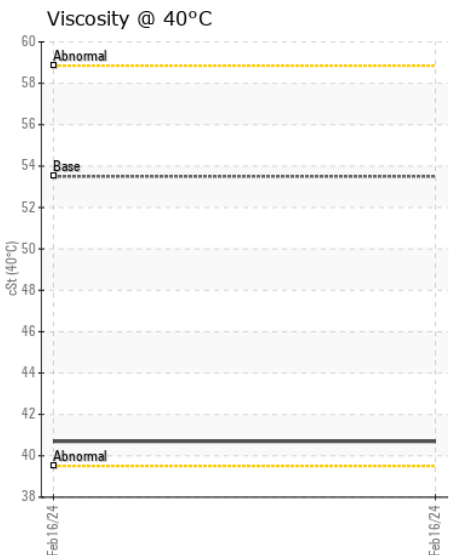
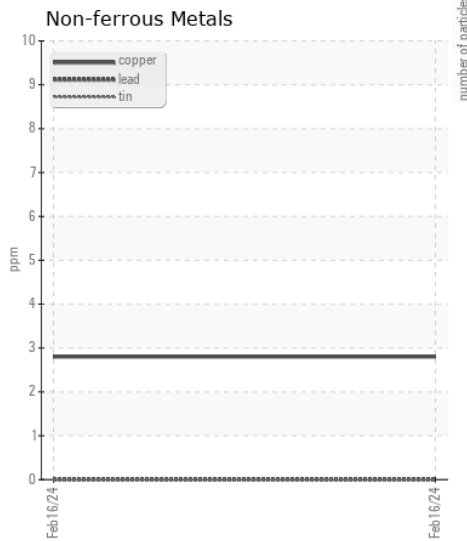
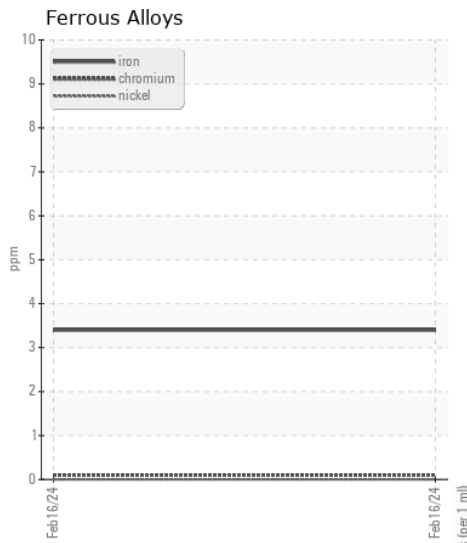
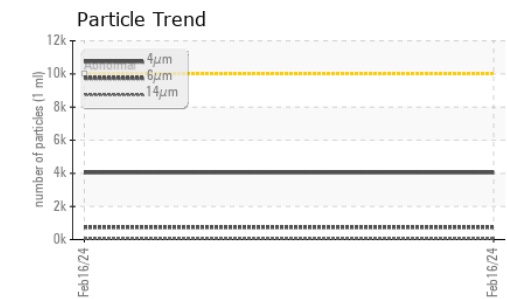
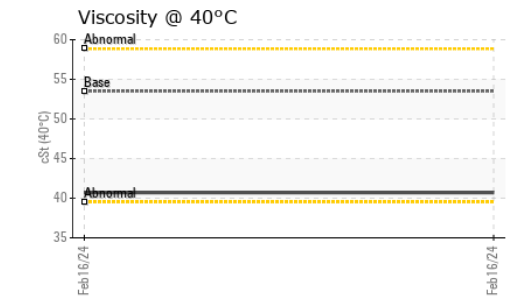
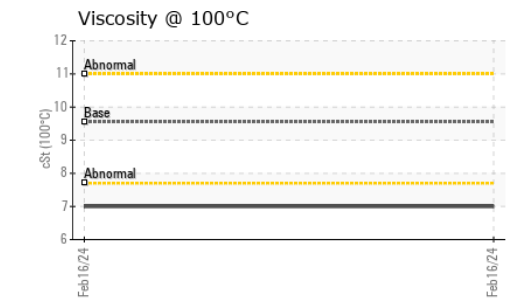
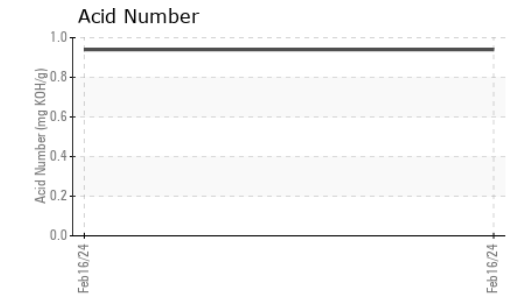
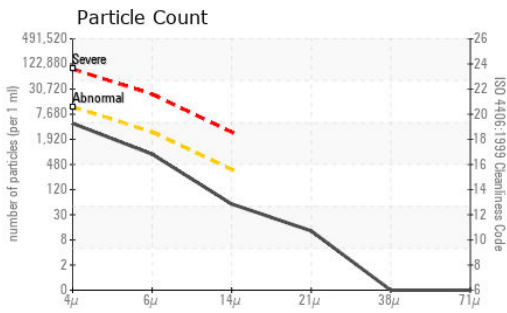
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	15	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>10000	4042	---	---
Particles >6µm		ASTM D7647	>2500	743	---	---
Particles >14µm		ASTM D7647	>320	48	---	---
Particles >21µm		ASTM D7647	>80	11	---	---
Particles >38µm		ASTM D7647	>20	0	---	---
Particles >71µm		ASTM D7647	>4	0	---	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	19/17/13	---	---
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	>0.1	NEG	---	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	---	---
Boron	ppm	ASTM D5185m		127	---	---
Barium	ppm	ASTM D5185m		8	---	---
Molybdenum	ppm	ASTM D5185m		0	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		9	---	---
Calcium	ppm	ASTM D5185m	4200	3421	---	---
Phosphorus	ppm	ASTM D5185m	1100	1105	---	---
Zinc	ppm	ASTM D5185m	2000	1412	---	---
Sulfur	ppm	ASTM D5185m		5607	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.94	---	---
Visc @ 40°C	cSt	ASTM D445	53.5	40.7	---	---
Visc @ 100°C	cSt	ASTM D445	9.55	7	---	---
Viscosity Index (VI)	Scale	ASTM D2270	164	132	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06100894
Lab Number : 06100894
Unique Number : 10899124
Test Package : MOB 2 (Additional Tests: KV100, PrtCount, VI)

Received : 26 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 28 Feb 2024 - Doug Bogart

TRECO
 10906 MONITOR MCKEE RD NE
 WOODBURN, OR
 US 97071
 Contact: JEFF WARREN

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: