



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Machine Id
KALMAR RT022 00004
 Component
Hydraulic System
 Fluid
SAE 10W (10 GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06221165	---	---
Sample Date		Client Info		12 Jun 2024	---	---
Machine Age	hrs	Client Info		552	---	---
Oil Age	hrs	Client Info		552	---	---
Filter Age	hrs	Client Info		552	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				ATTENTION	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<1	---	---
Chromium	ppm	ASTM D5185m	>10	0	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	<1	---	---
Lead	ppm	ASTM D5185m	>10	2	---	---
Copper	ppm	ASTM D5185m	>75	22	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

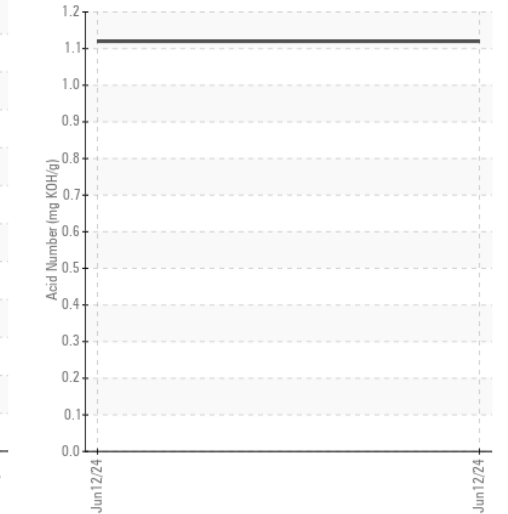
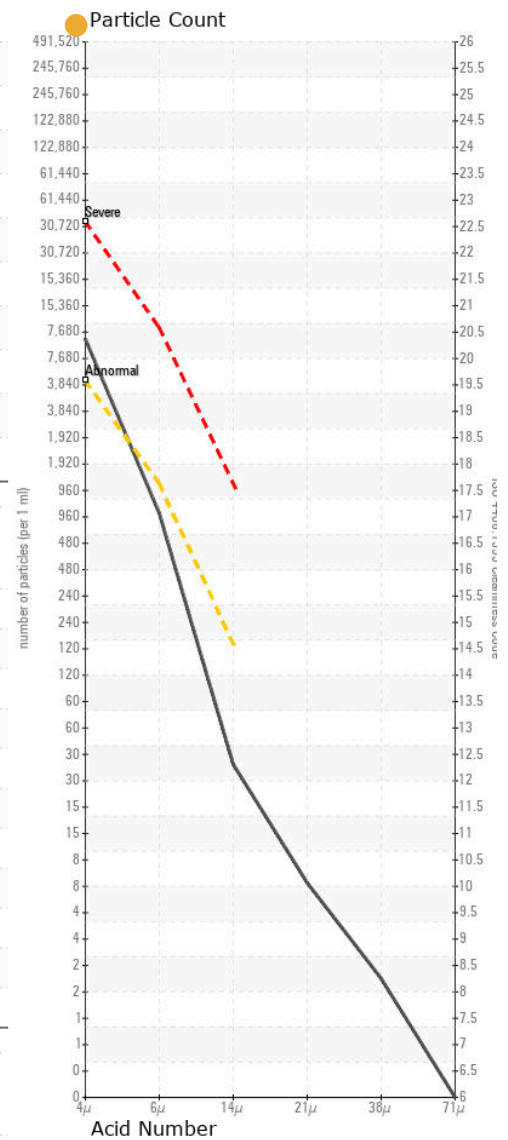
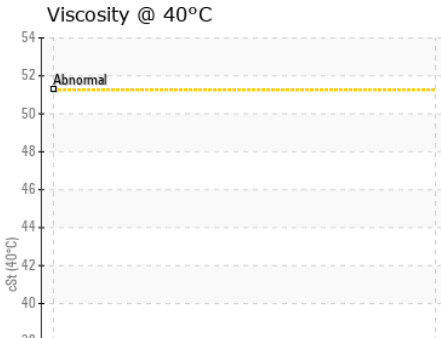
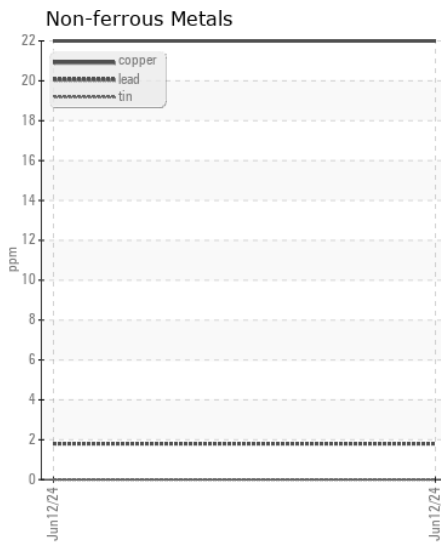
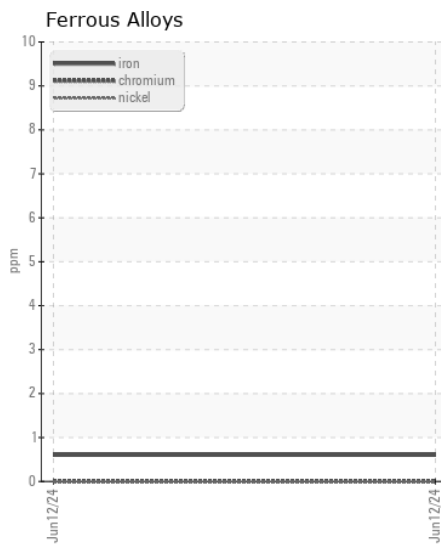
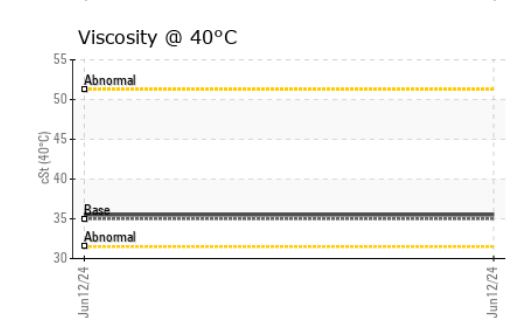
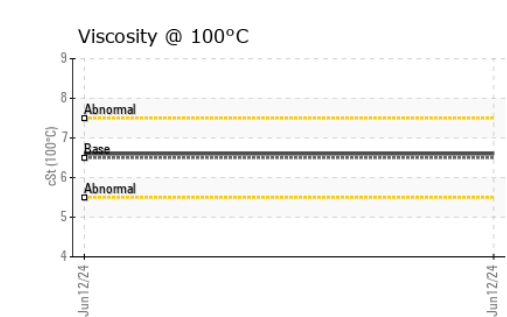
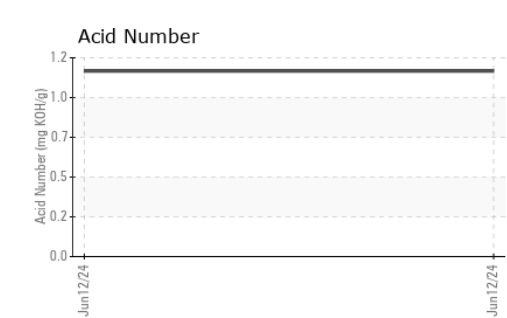
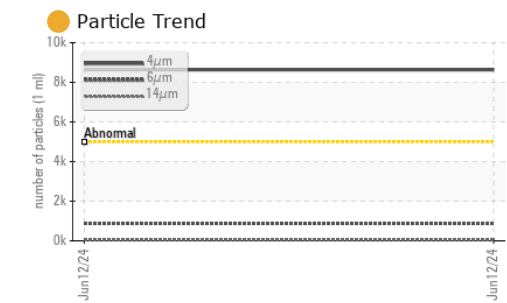
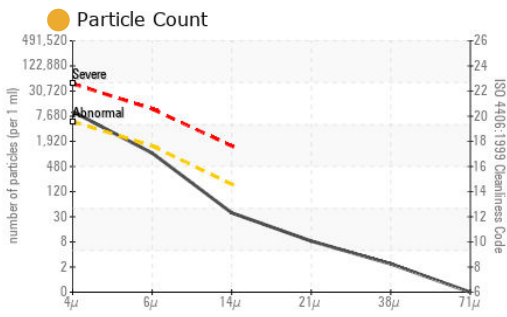
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	5	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>5000	8633	---	---
Particles >6µm		ASTM D7647	>1300	882	---	---
Particles >14µm		ASTM D7647	>160	33	---	---
Particles >21µm		ASTM D7647	>40	7	---	---
Particles >38µm		ASTM D7647	>10	2	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/17/12	---	---
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		3	---	---
Boron	ppm	ASTM D5185m		13	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		7	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		193	---	---
Calcium	ppm	ASTM D5185m		2226	---	---
Phosphorus	ppm	ASTM D5185m		1006	---	---
Zinc	ppm	ASTM D5185m		1179	---	---
Sulfur	ppm	ASTM D5185m		3879	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		1.12	---	---
Visc @ 40°C	cSt	ASTM D445	35.0	35.5	---	---
Visc @ 100°C	cSt	ASTM D445	6.5	6.6	---	---
Viscosity Index (VI)	Scale	ASTM D2270	141	143	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06221165 **Received** : 26 Jun 2024
Lab Number : 06221165 **Tested** : 27 Jun 2024
Unique Number : 11099362 **Diagnosed** : 27 Jun 2024 - Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, VI)

WIE - WESTERN INDUSTRIAL EQUIPMENT
 10761 N WILSON RD
 LAKE CITY, MI
 US 49651
 Contact: JOHN HIGGINS

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: