



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HANSON

Component
Gearbox

Fluid
TRC MOLY ULTRA-TEC GEAR OIL 80W90 (5 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		TR06236238	TR06211918	TR06169124
Sample Date		Client Info		11 Jul 2024	09 Jun 2024	26 Apr 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		463	140	51
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Not Changed	Not Changed	Not Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Gear wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	▲ 379	▲ 261	▲ 201
Chromium	ppm	ASTM D5185m	>10	5	4	2
Nickel	ppm	ASTM D5185m	>10	0	2	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	4	4	2
Lead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>200	3	2	1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

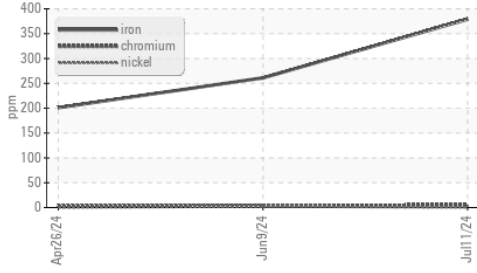
Silicon	ppm	ASTM D5185m	>50	11	9	6
Potassium	ppm	ASTM D5185m	>20	0	3	1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

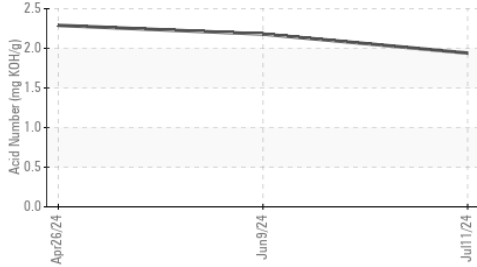
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		6	5	3
Boron	ppm	ASTM D5185m		115	109	135
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		2	2	1
Magnesium	ppm	ASTM D5185m		2	4	3
Calcium	ppm	ASTM D5185m		8	13	47
Phosphorus	ppm	ASTM D5185m		898	913	915
Zinc	ppm	ASTM D5185m		3	11	16
Sulfur	ppm	ASTM D5185m		21952	24126	23696
Acid Number (AN)	mg KOH/g	ASTM D8045		1.94	2.18	2.29
Visc @ 40°C	cSt	ASTM D445	186	147	151	151
Visc @ 100°C	cSt	ASTM D445	19.3	16.3	16.3	16.4
Viscosity Index (VI)	Scale	ASTM D2270	125	117	113	114

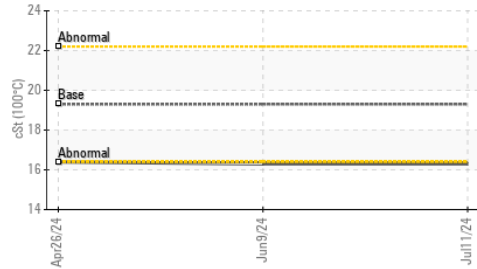
▲ Ferrous Alloys



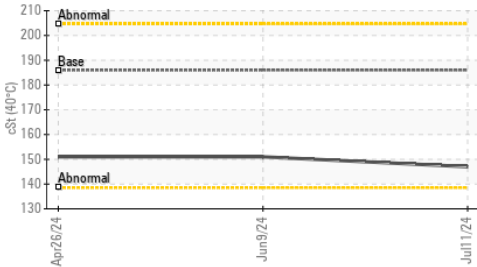
Acid Number



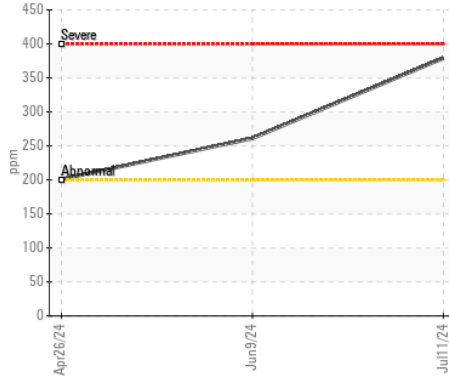
Viscosity @ 100°C



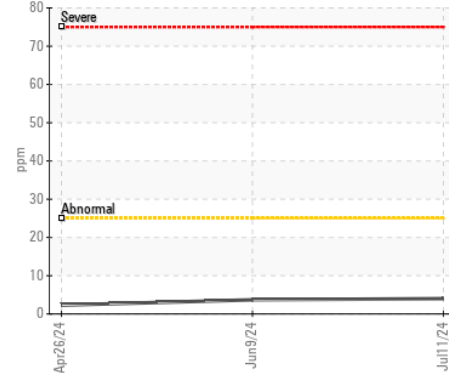
Viscosity @ 40°C



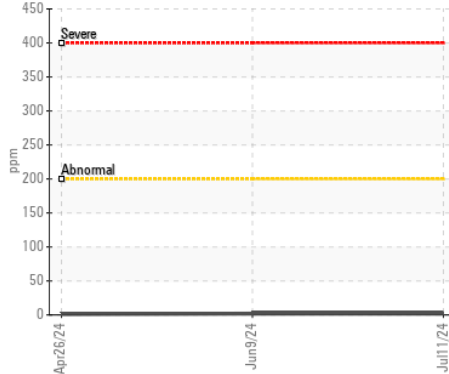
▲ Iron (ppm)



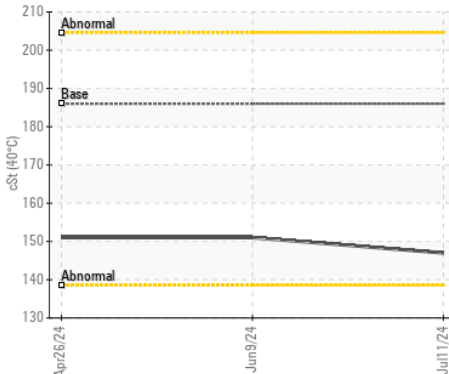
Aluminum (ppm)



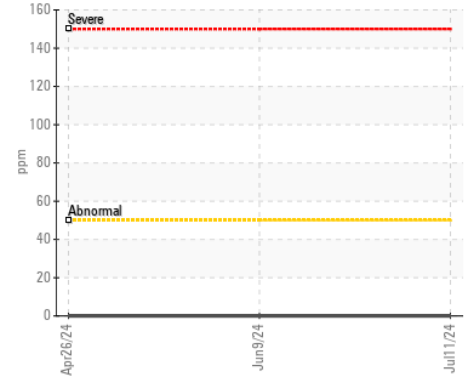
Copper (ppm)



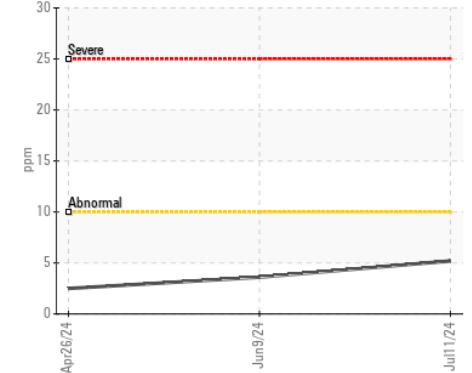
Viscosity @ 40°C



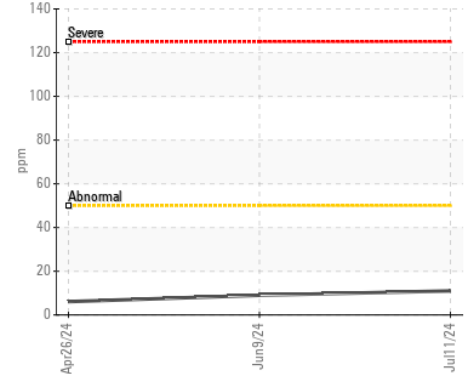
Lead (ppm)



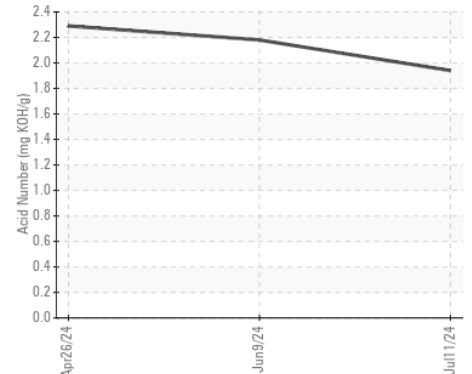
Chromium (ppm)



Silicon (ppm)



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : TR06236238
 Lab Number : 06236238
 Unique Number : 11125072
 Test Package : MOB 2 (Additional Tests: KV100, VI)

Received : 15 Jul 2024
 Tested : 16 Jul 2024
 Diagnosed : 17 Jul 2024 - Don Baldrige

WALLOWA LAKE TRAMWAY
 59919 WALLOWA LAKE HWY
 JOSEPH, OR
 US 97846
 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: