



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**KENWORTH T-800 386871**

Component  
**Diesel Engine**

Fluid  
**TRC PRO-SPEC III TBN 15 PLUS 15W40 (12 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06055060	TR05176820	TR04923975
Sample Date		Client Info		04 Dec 2023	08 Jan 2021	25 Feb 2020
Machine Age	mls	Client Info		158362	143399	135541
Oil Age	mls	Client Info		8109	87020	79162
Filter Age	mls	Client Info		3817	8458	7930
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	18	89	94
Chromium	ppm	ASTM D5185m	>20	<1	2	2
Nickel	ppm	ASTM D5185m	>2	2	2	3
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	2	<1	3
Lead	ppm	ASTM D5185m	>40	2	1	1
Copper	ppm	ASTM D5185m	>330	66	▲ 777	▲ 482
Tin	ppm	ASTM D5185m	>15	1	1	1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

## CONTAMINATION

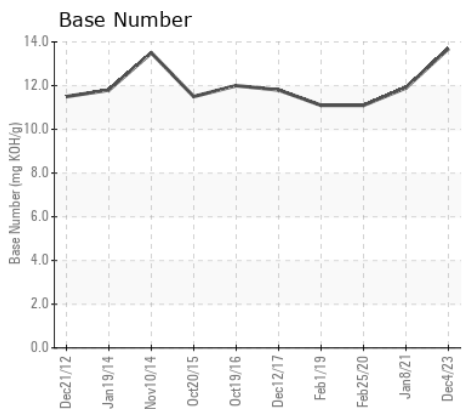
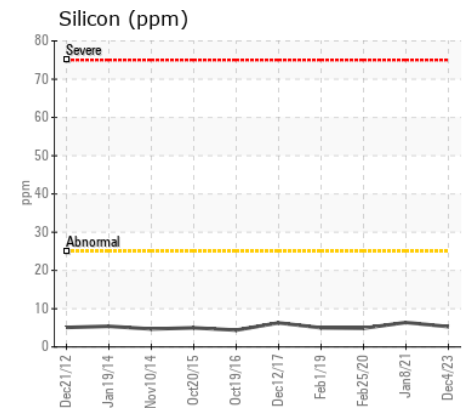
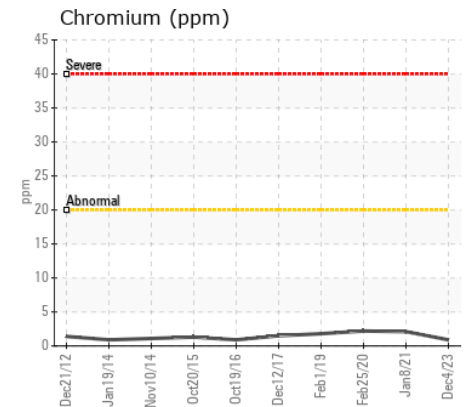
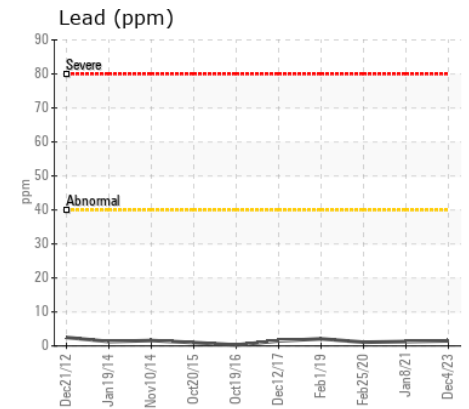
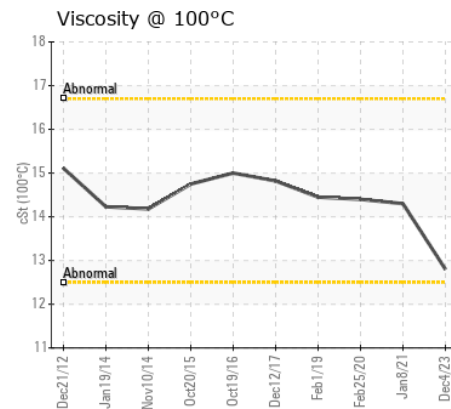
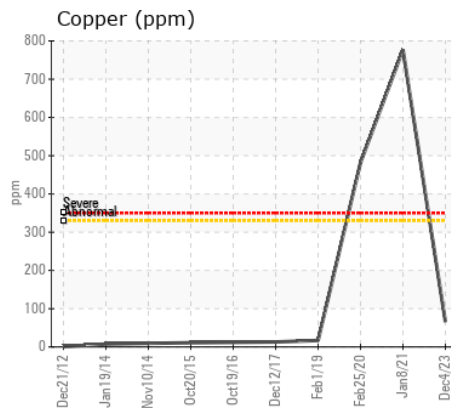
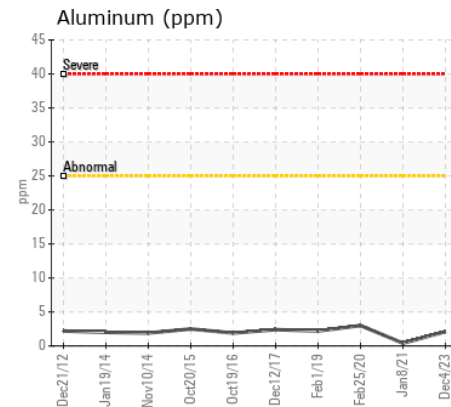
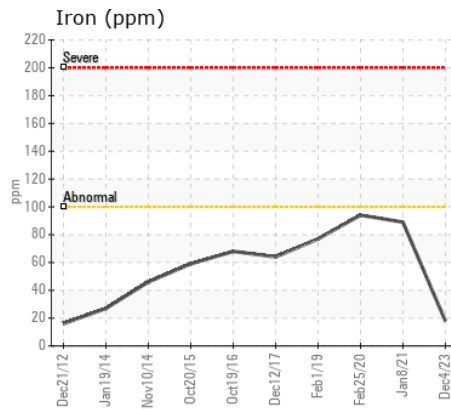
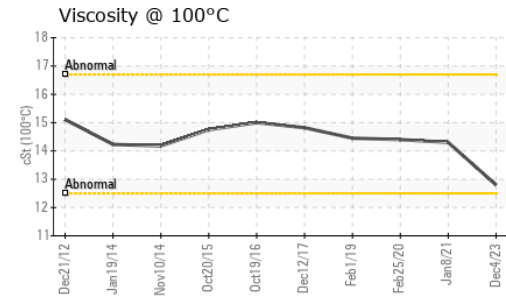
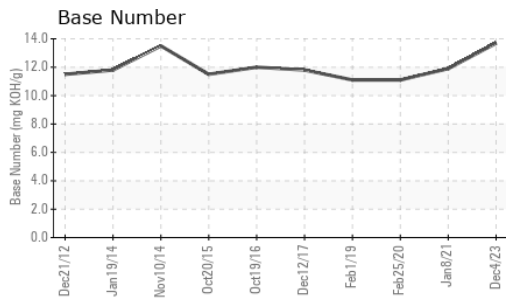
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	6	5
Potassium	ppm	ASTM D5185m	>20	4	4	4
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	5.7	8.5	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.8	21.8	21.7
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		1	0	5
Boron	ppm	ASTM D5185m		<1	1	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		6	17	12
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		55	249	201
Calcium	ppm	ASTM D5185m		4692	3721	3501
Phosphorus	ppm	ASTM D5185m		885	1106	1029
Zinc	ppm	ASTM D5185m		1107	1307	1151
Sulfur	ppm	ASTM D5185m		4873	3880	3829
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.5	15.3	15.1
Base Number (BN)	mg KOH/g	ASTM D2896		13.69	11.9	11.1
Visc @ 100°C	cSt	ASTM D445		12.8	14.3	14.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06055060 **Received** : 08 Jan 2024  
**Lab Number** : 06055060 **Diagnosed** : 10 Jan 2024  
**Unique Number** : 10821009 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

**CUSTOM CROP CARE - HELENA AGRI ENT**  
 309 SOLLID RD  
 CONRAD, MT  
 US 59425  
 Contact: MARK OPHEIM

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: