TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KENWORTH T-800 TODD (S/N 494263)
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (11 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

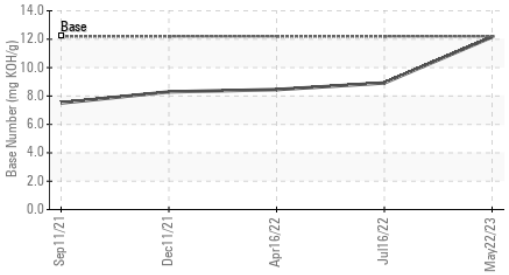
There is no indication of any contamination in the oil.

FLUID CONDITION

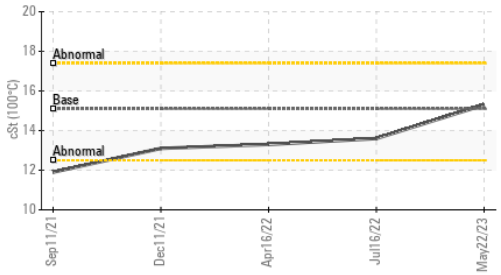
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05861428	TR05653352	TR05653353
Sample Date		Client Info		22 May 2023	16 Jul 2022	16 Apr 2022
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		21923	10574	14503
Filter Age	mls	Client Info		21923	10574	14503
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>90	33	17	27
Chromium	ppm	ASTM D5185m	>20	2	1	2
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	7	8	13
Lead	ppm	ASTM D5185m	>40	1	1	2
Copper	ppm	ASTM D5185m	>330	3	1	2
Tin	ppm	ASTM D5185m	>15	1	1	2
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	15	10	11
Potassium	ppm	ASTM D5185m	>20	17	16	33
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.7	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	12.4	9.3	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.3	25.7	26.4
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
Sodium	ppm	ASTM D5185m		3	3	3
Boron	ppm	ASTM D5185m		18	241	275
Barium	ppm	ASTM D5185m		0	<1	<1
Molybdenum	ppm	ASTM D5185m		132	105	114
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		95	651	677
Calcium	ppm	ASTM D5185m		4461	1480	1553
Phosphorus	ppm	ASTM D5185m	1360	910	678	691
Zinc	ppm	ASTM D5185m	1480	1112	826	856
Sulfur	ppm	ASTM D5185m		4805	2889	2934
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	18.3	19.1
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	12.16	8.92	8.45
Visc @ 100°C	cSt	ASTM D445	15.1	15.3	13.6	13.3

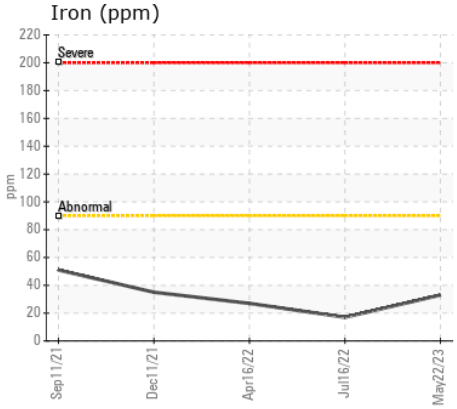
Base Number



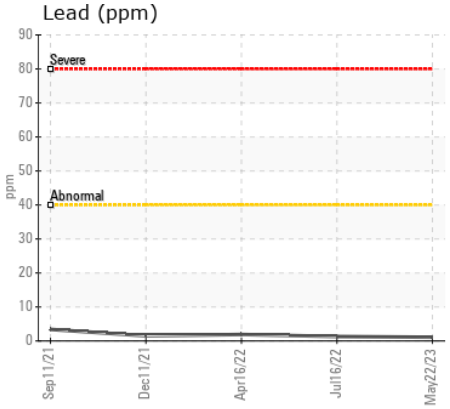
Viscosity @ 100°C



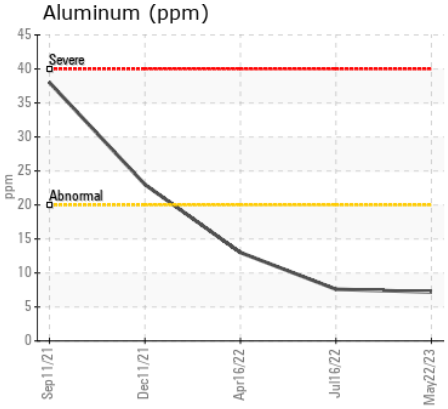
Iron (ppm)



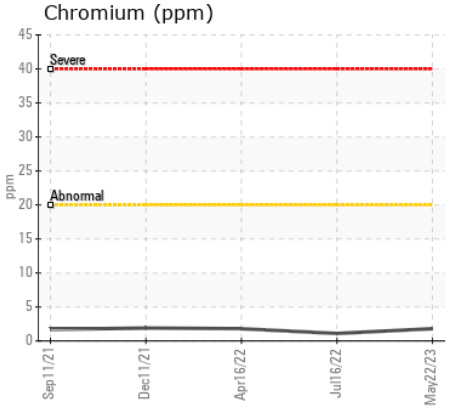
Lead (ppm)



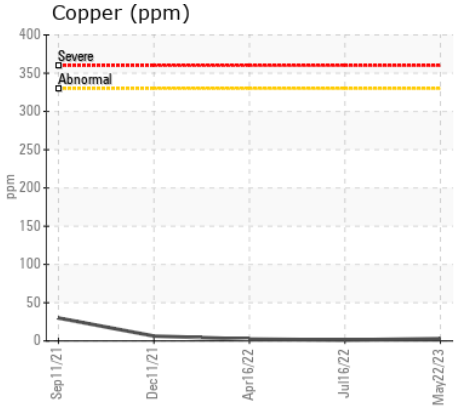
Aluminum (ppm)



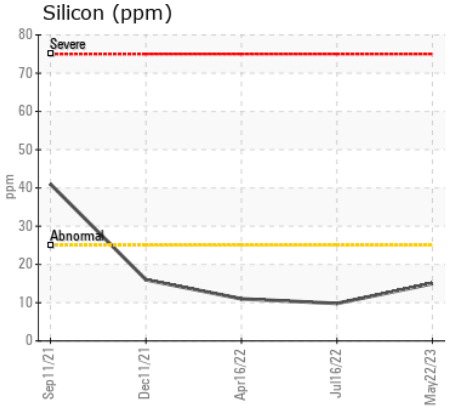
Chromium (ppm)



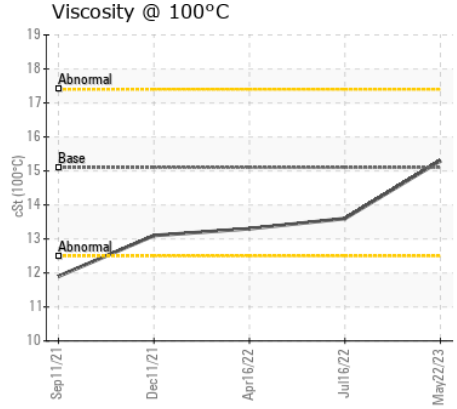
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



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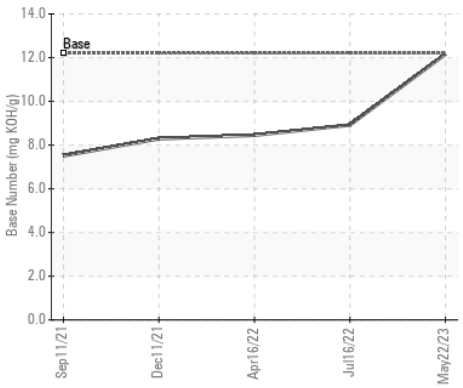

Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: TR05861428	**Recieved**	: 31 May 2023
Lab Number	: 05861428	**Diagnosed**	: 02 Jun 2023
Unique Number	: 10495893	**Diagnostician**	: Sean Felton
Test Package	: MOB 2		

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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