TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	ATTENTION

Machine Id
FORD FORD F-250
Component
Diesel Engine
Fluid
CHEVRON DELO 400 SDE SAE 15W40 (15 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

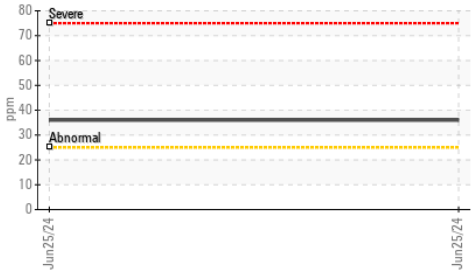
Boron and/or potassium levels are high. Suspect oil additives. Elemental level of silicon (Si) above normal indicating ingress of seal material. Test for glycol is negative.

FLUID CONDITION

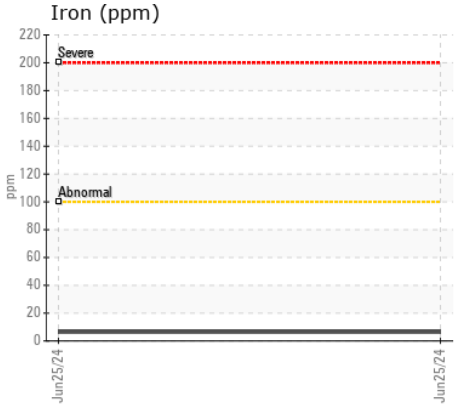
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06226461	---	---
Sample Date		Client Info		25 Jun 2024	---	---
Machine Age	mls	Client Info		10000	---	---
Oil Age	mls	Client Info		5400	---	---
Filter Age	mls	Client Info		5400	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ATTENTION	---	---
Iron	ppm	ASTM D5185m	>100	6	---	---
Chromium	ppm	ASTM D5185m	>20	0	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m	>2	0	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>25	3	---	---
Lead	ppm	ASTM D5185m	>40	2	---	---
Copper	ppm	ASTM D5185m	>330	3	---	---
Tin	ppm	ASTM D5185m	>15	2	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>25	▲ 36	---	---
Potassium	ppm	ASTM D5185m	>20	● 1060	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	6.0	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.0	---	---
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	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185m		14	---	---
Boron	ppm	ASTM D5185m		● 1186	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		97	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		689	---	---
Calcium	ppm	ASTM D5185m		1479	---	---
Phosphorus	ppm	ASTM D5185m	760	714	---	---
Zinc	ppm	ASTM D5185m	800	814	---	---
Sulfur	ppm	ASTM D5185m	3000	3010	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	12.08	---	---
Visc @ 100°C	cSt	ASTM D445	14.6	13.0	---	---

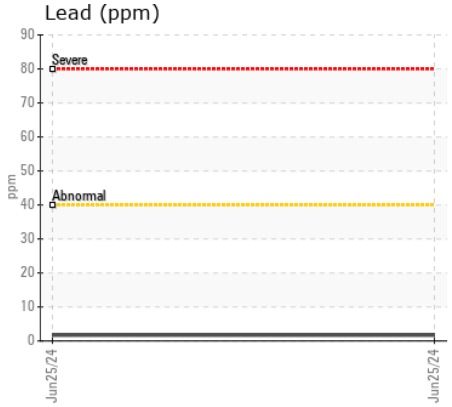
Silicon (ppm)



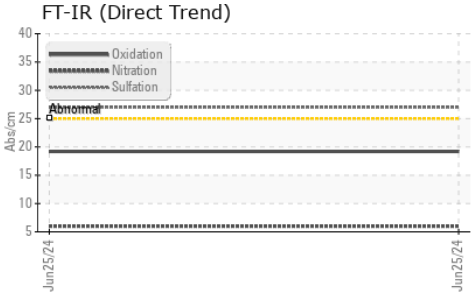
Iron (ppm)



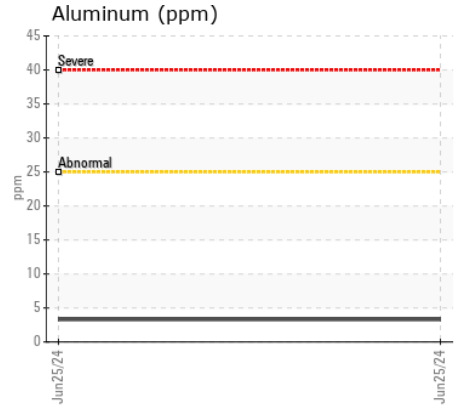
Lead (ppm)



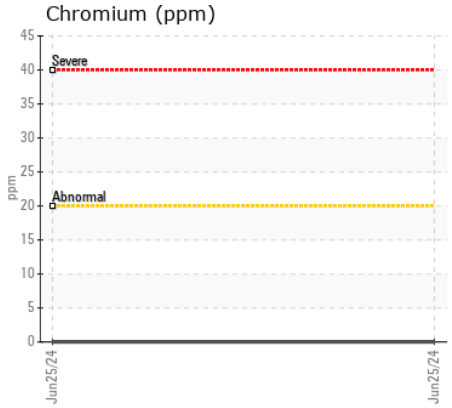
FT-IR (Direct Trend)



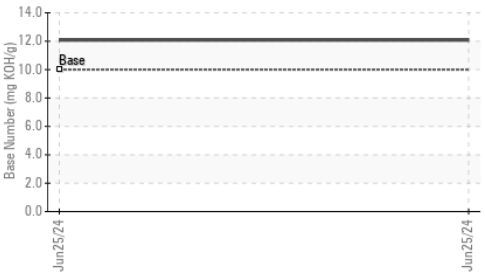
Aluminum (ppm)



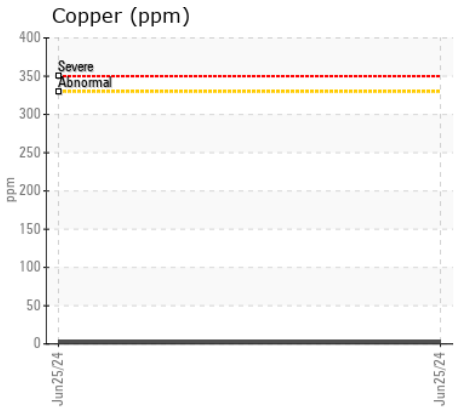
Chromium (ppm)



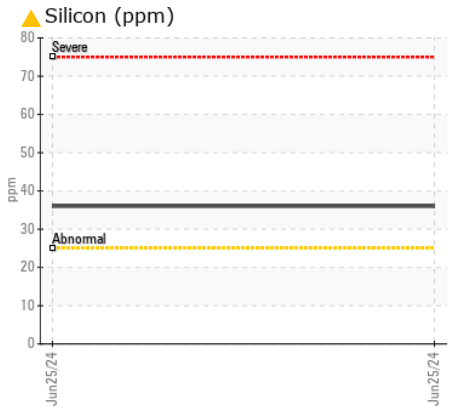
Base Number



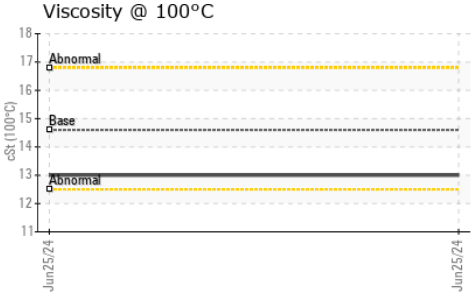
Copper (ppm)



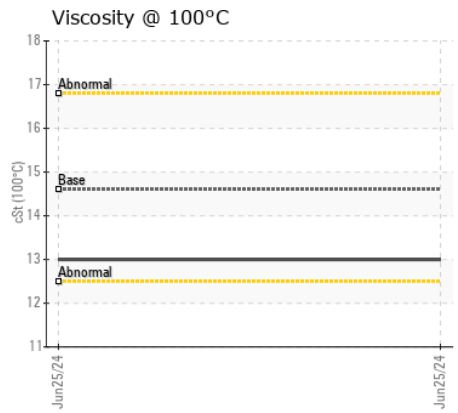
Silicon (ppm)



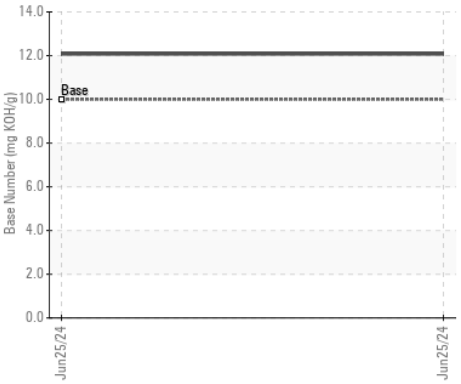
Viscosity @ 100°C



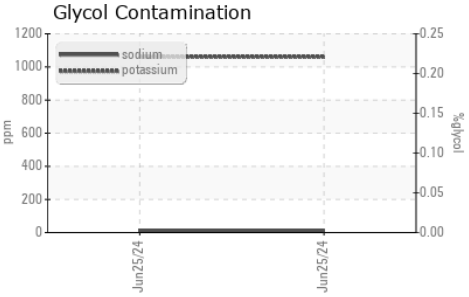
Viscosity @ 100°C



Base Number



Glycol Contamination



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06226461
Lab Number : 06226461
Unique Number : 11109954
Test Package : MOB 2 (Additional Tests: Glycol, KV40, TAN Man)

Received : 02 Jul 2024
Tested : 03 Jul 2024
Diagnosed : 03 Jul 2024 - Doug Bogart

SCOTT SATTERHWAITE
7251 EAST OSPREY ESTATES DRIVE
NAMPA, ID
US 83687
Contact: Service Manager

Certificate L2367

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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F: