TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
PETERBILT 14
Component
Diesel Engine
Fluid
TRC MOLY PRO-SPEC IV XP 15W40 (12 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

Sodium and/or potassium levels are high. Test for glycol is negative.

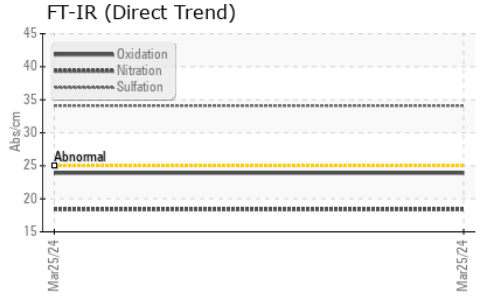
FLUID CONDITION

The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

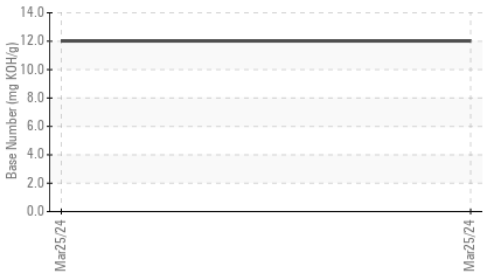
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06193032	---	---
Sample Date		Client Info		25 Mar 2024	---	---
Machine Age	mls	Client Info		448169	---	---
Oil Age	mls	Client Info		25000	---	---
Filter Age	mls	Client Info		15000	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m	>90	55	---	---
Chromium	ppm	ASTM D5185m	>20	2	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	1	---	---
Aluminum	ppm	ASTM D5185m	>20	8	---	---
Lead	ppm	ASTM D5185m	>40	4	---	---
Copper	ppm	ASTM D5185m	>330	3	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>25	21	---	---
Potassium	ppm	ASTM D5185m	>20	▲ 51	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>6	0.5	---	---
Nitration	Abs/cm	*ASTM D7624	>20	18.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	34.1	---	---
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		▲ 86	---	---
Boron	ppm	ASTM D5185m		4	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		160	---	---
Manganese	ppm	ASTM D5185m		1	---	---
Magnesium	ppm	ASTM D5185m		93	---	---
Calcium	ppm	ASTM D5185m		4695	---	---
Phosphorus	ppm	ASTM D5185m		1035	---	---
Zinc	ppm	ASTM D5185m		1229	---	---
Sulfur	ppm	ASTM D5185m		4908	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.9	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		12.02	---	---
Visc @ 100°C	cSt	ASTM D445		▲ 18.25	---	---

Viscosity @ 100°C

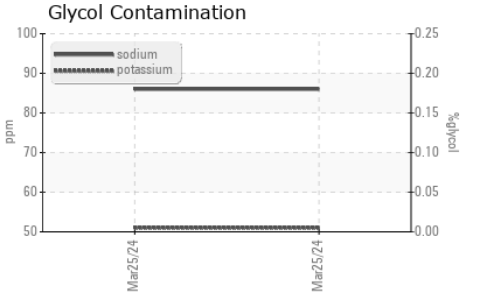
FT-IR (Direct Trend)



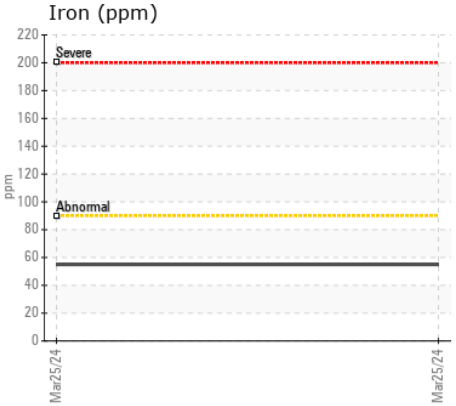
Base Number



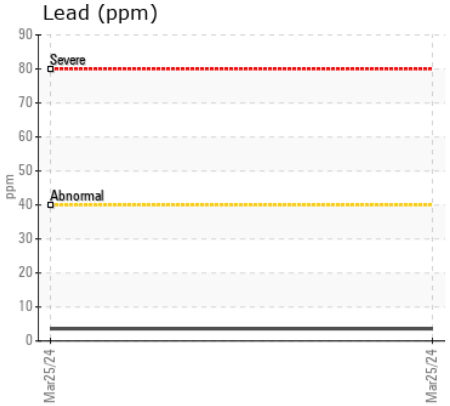
Glycol Contamination



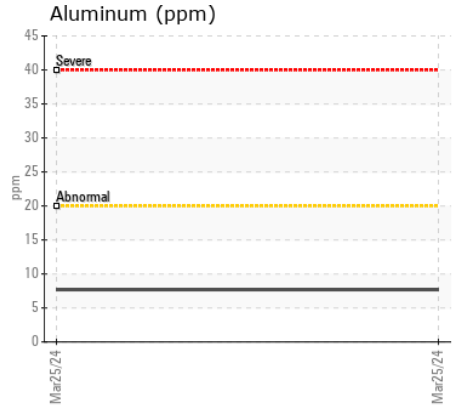
Iron (ppm)



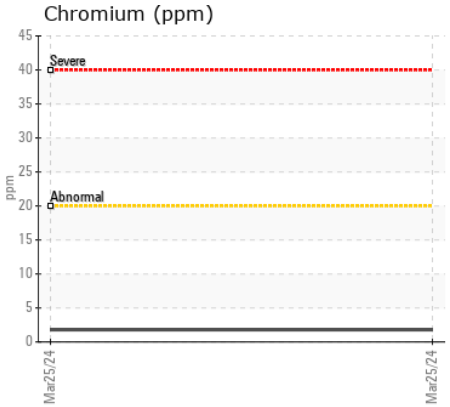
Lead (ppm)



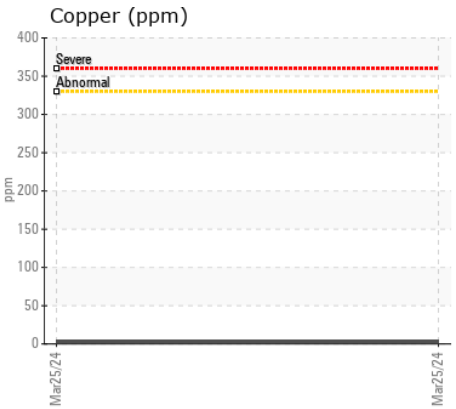
Aluminum (ppm)



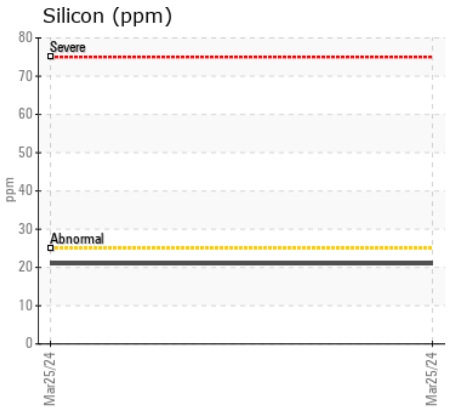
Chromium (ppm)



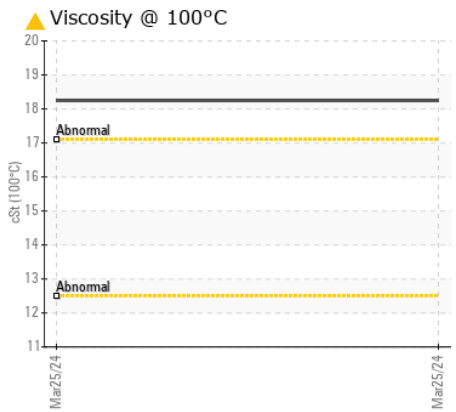
Copper (ppm)



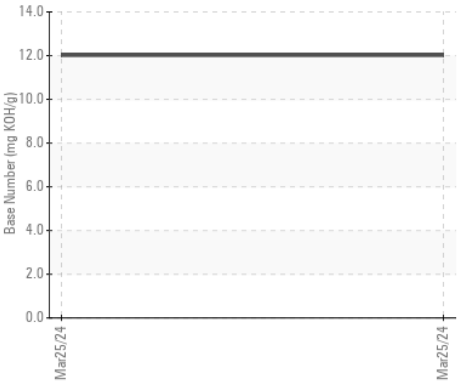
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06193032 **Received** : 28 May 2024
Lab Number : 06193032 **Tested** : 05 Jun 2024
Unique Number : 11049784 **Diagnosed** : 05 Jun 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: Glycol)

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)

JARED SCHMIDT
PO BOX 491
RONAN, MT
US 59864
Contact: DAN NIGHTENGALE
T:
F: