



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
PETERBILT 114
 Component
Diesel Engine
 Fluid
TRC PRO-SPEC IV XP SYN BLEND 15W40 (11 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06157121	TR06121053	TR06042719
Sample Date		Client Info		09 Apr 2024	31 Jan 2024	20 Nov 2023
Machine Age	mls	Client Info		73031	58285	43536
Oil Age	mls	Client Info		14746	14749	14846
Filter Age	mls	Client Info		14746	14749	14846
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>90	16	16	18
Chromium	ppm	ASTM D5185m	>20	<1	1	2
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	14	17	27
Lead	ppm	ASTM D5185m	>40	<1	2	2
Copper	ppm	ASTM D5185m	>330	0	1	3
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

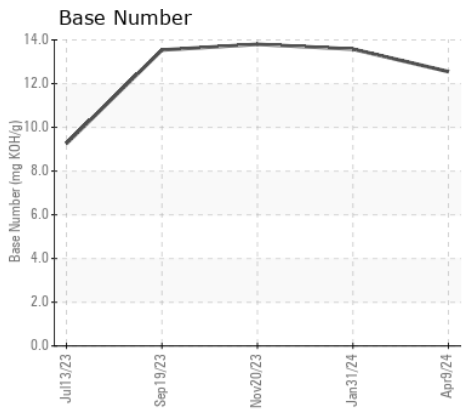
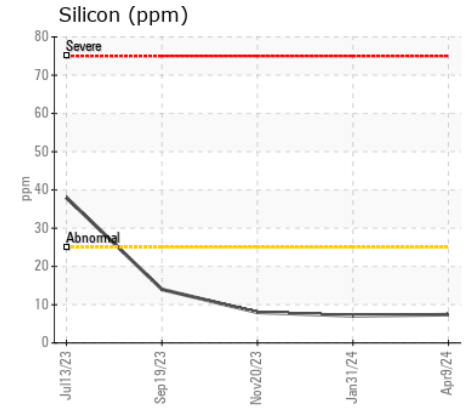
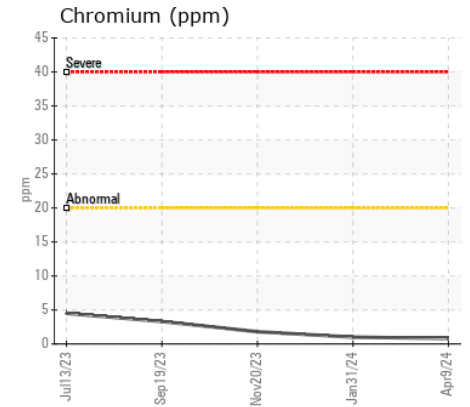
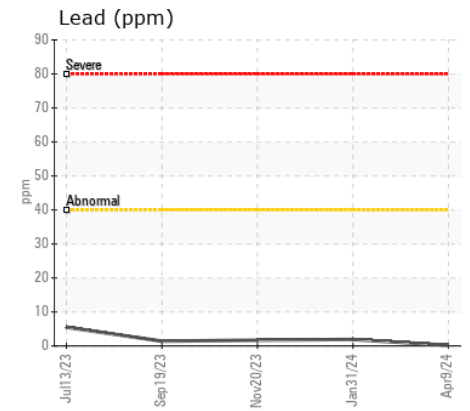
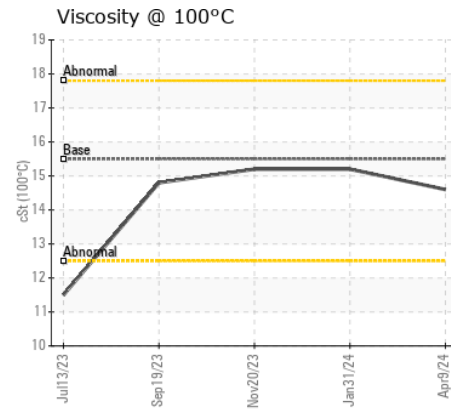
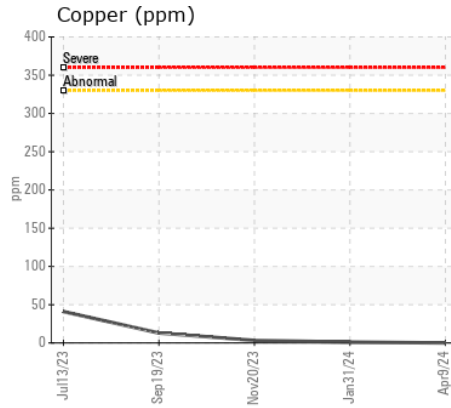
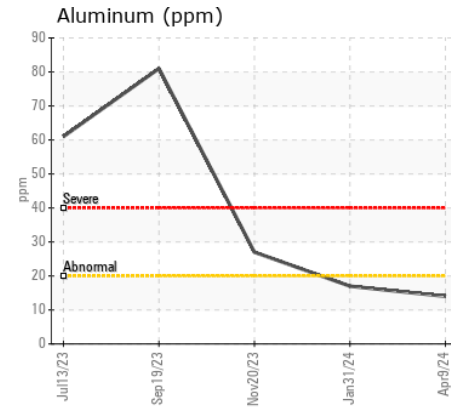
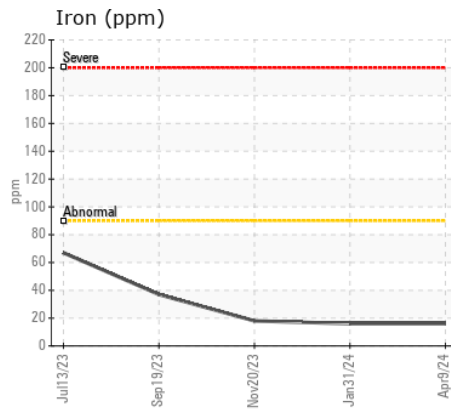
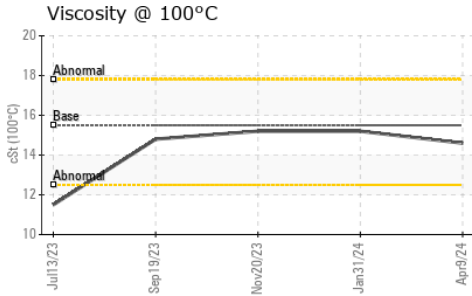
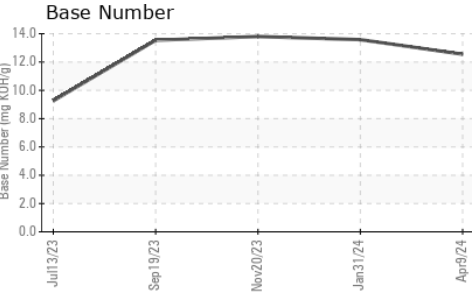
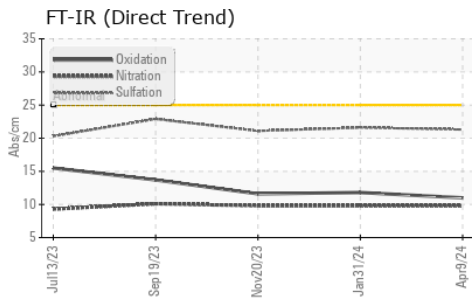
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	7	8
Potassium	ppm	ASTM D5185m	>20	26	35	61
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	0.8	0.6	0.7
Nitration	Abs/cm	*ASTM D7624	>20	9.8	9.8	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3	21.6	21.1
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		4	3	2
Boron	ppm	ASTM D5185m		2	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		37	17	24
Calcium	ppm	ASTM D5185m		4431	4551	3979
Phosphorus	ppm	ASTM D5185m		868	932	873
Zinc	ppm	ASTM D5185m		999	1133	1026
Sulfur	ppm	ASTM D5185m		4170	4710	3695
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.0	11.8	11.6
Base Number (BN)	mg KOH/g	ASTM D2896		12.55	13.58	13.80
Visc @ 100°C	cSt	ASTM D445	15.5	14.6	15.2	15.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06157121
Lab Number : 06157121
Unique Number : 10992544
Test Package : MOB 2
Received : 22 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 23 Apr 2024 - Wes Davis

MID-EAST TRUCKING
 831 W. NASSAU ST.
 EAST CANTON, OH
 US 44730
 Contact: JIM FITZGERALD
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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)