



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**PETERBILT 5**

Component  
**Diesel Engine**

Fluid  
**TRC MOLY XL PRO-SPEC IV XP 15W40 (10 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TR06223659</b>	TR04875029	TR04696627
Sample Date		Client Info		<b>17 Apr 2024</b>	10 Dec 2019	20 Apr 2019
Machine Age	mls	Client Info		<b>862581</b>	800367	793000
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	7367	0
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changd	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>70</b>	25	89
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	3	11
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	4	6
Lead	ppm	ASTM D5185m	>40	<b>33</b>	6	29
Copper	ppm	ASTM D5185m	>330	<b>24</b>	3	21
Tin	ppm	ASTM D5185m	>15	<b>4</b>	<1	5
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

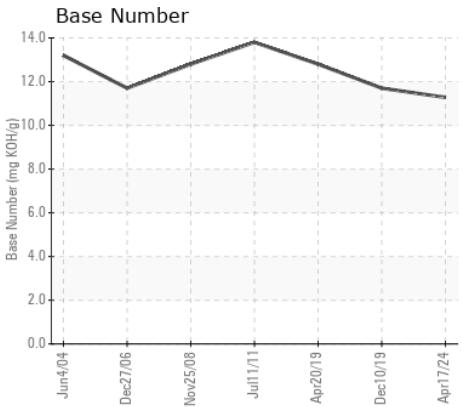
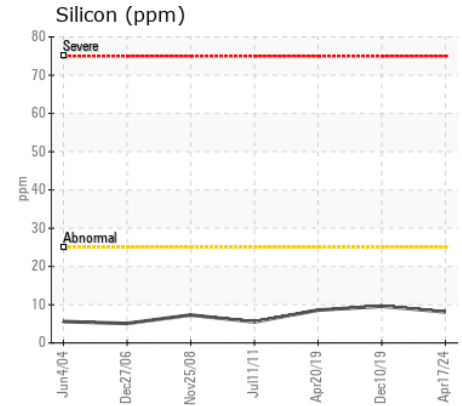
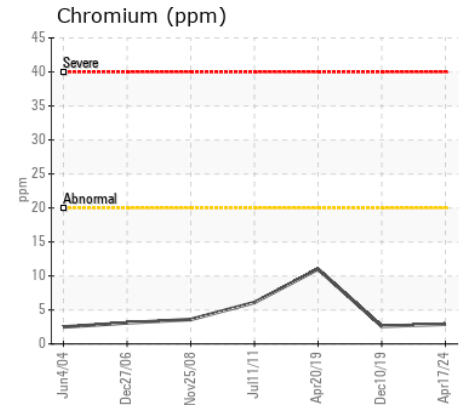
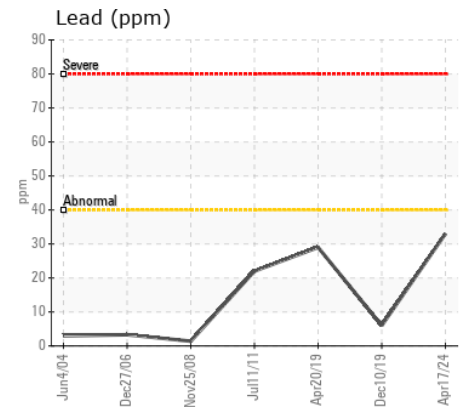
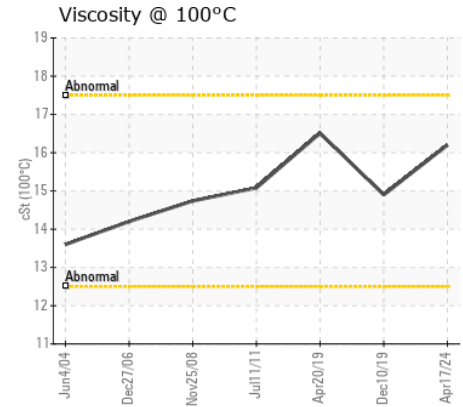
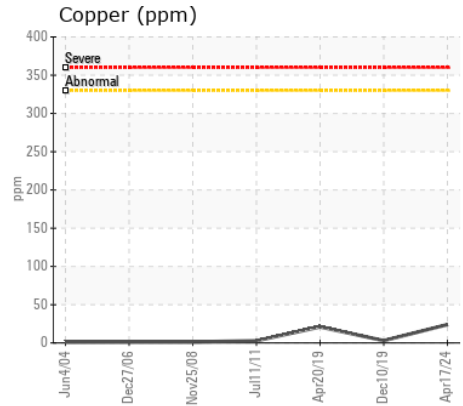
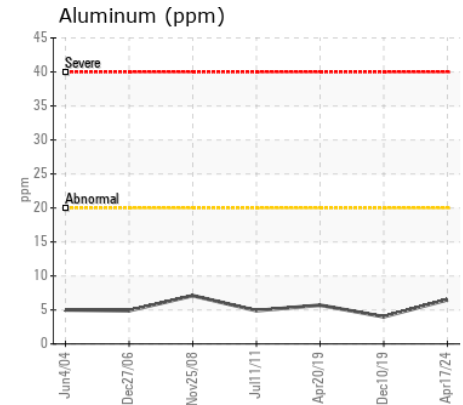
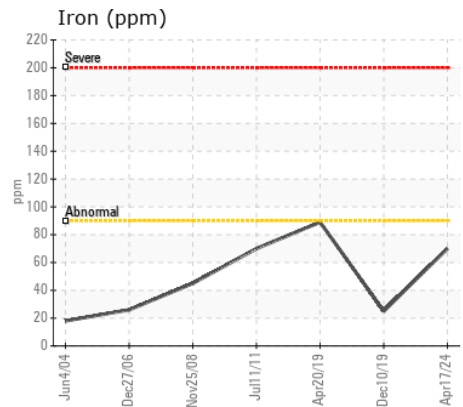
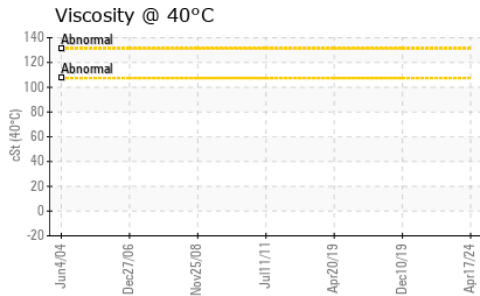
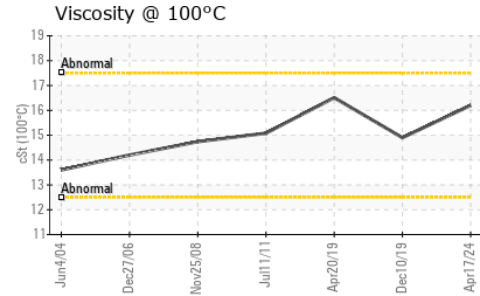
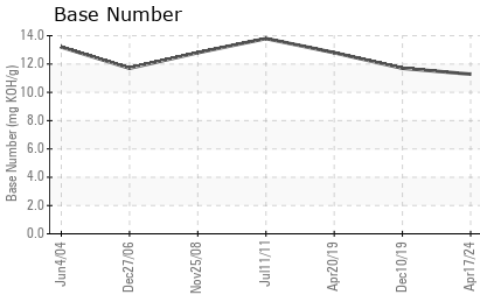
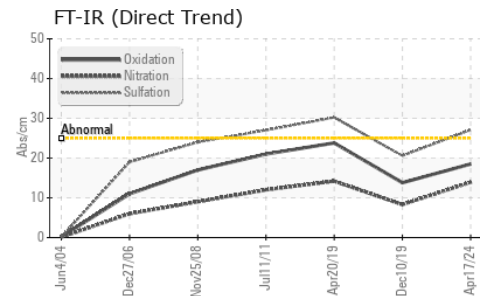
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	10	9
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	1	4
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>6	<b>2.2</b>	0.7	1.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.9</b>	8.3	14.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>27.1</b>	20.6	30.2
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>21</b>	3	15
Boron	ppm	ASTM D5185m		<b>6</b>	160	106
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>99</b>	186	224
Manganese	ppm	ASTM D5185m		<b>3</b>	3	2
Magnesium	ppm	ASTM D5185m		<b>46</b>	444	750
Calcium	ppm	ASTM D5185m		<b>4669</b>	3770	3638
Phosphorus	ppm	ASTM D5185m		<b>953</b>	897	942
Zinc	ppm	ASTM D5185m		<b>1124</b>	996	1266
Sulfur	ppm	ASTM D5185m		<b>4566</b>	1755	3225
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.5</b>	13.8	23.8
Base Number (BN)	mg KOH/g	ASTM D2896		<b>11.28</b>	11.7	12.8
Visc @ 100°C	cSt	ASTM D445		<b>16.2</b>	14.9	16.51



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06223659 **Received** : 28 Jun 2024  
**Lab Number** : 06223659 **Tested** : 01 Jul 2024  
**Unique Number** : 11101856 **Diagnosed** : 01 Jul 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: KV40 )

**CONFAB INC**  
 882 N MARSHALL WAY  
 LAYTON, UT  
 US 84041  
 Contact: JOHN AAGARD

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: