



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
PETERBILT 55
 Component
Diesel Engine
 Fluid
TRC MOLY XL PROSPEC III 15W40 (10 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06055076	TR05923628	TR05635163
Sample Date		Client Info		27 Nov 2023	12 Jul 2023	11 Aug 2022
Machine Age	mls	Client Info		87053	106134	18897
Oil Age	mls	Client Info		20919	72411	26174
Filter Age	mls	Client Info		20919	72411	26174
Oil Changed		Client Info		Not Chngd	Changed	Not Chngd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

Exhaust valve wear is indicated.

Iron	ppm	ASTM D5185m	>100	66	▲ 166	118
Chromium	ppm	ASTM D5185m	>20	3	6	3
Nickel	ppm	ASTM D5185m	>2	▲ 7	▲ 8	4
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	4	▲ 7	6
Lead	ppm	ASTM D5185m	>40	2	5	4
Copper	ppm	ASTM D5185m	>330	7	21	18
Tin	ppm	ASTM D5185m	>15	1	2	2
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.

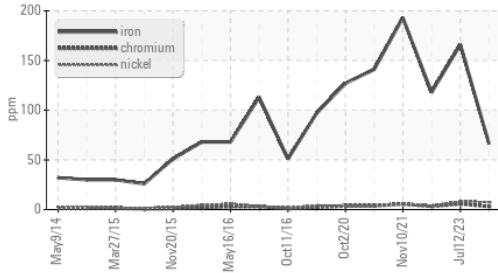
Silicon	ppm	ASTM D5185m	>25	13	▲ 25	21
Potassium	ppm	ASTM D5185m	>20	3	2	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.9	10.1	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	22.9	24.6
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

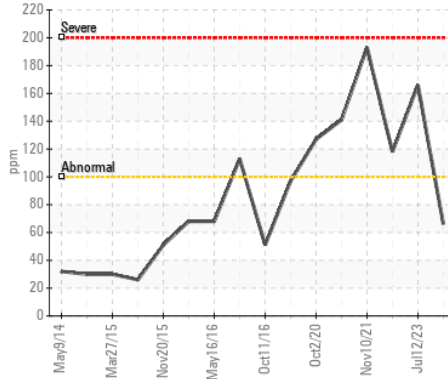
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<1	4	<1
Boron	ppm	ASTM D5185m		196	213	237
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		197	233	211
Manganese	ppm	ASTM D5185m		1	2	1
Magnesium	ppm	ASTM D5185m		442	504	454
Calcium	ppm	ASTM D5185m	4500	4039	4390	3791
Phosphorus	ppm	ASTM D5185m		764	936	760
Zinc	ppm	ASTM D5185m	1400	1083	1133	940
Sulfur	ppm	ASTM D5185m		3734	4378	3135
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.9	16.4	17.0
Base Number (BN)	mg KOH/g	ASTM D2896	15	12.60	14.00	13.4
Visc @ 100°C	cSt	ASTM D445	15.5	14.8	15.5	15.4

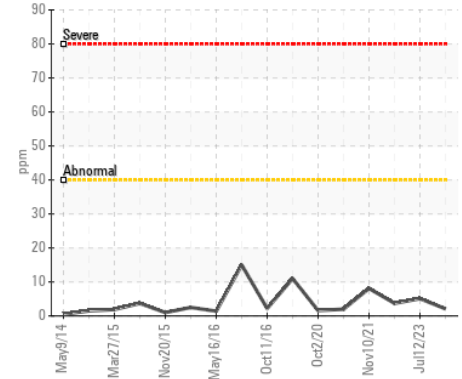
▲ Ferrous Alloys



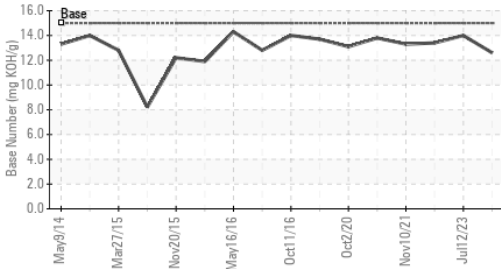
Iron (ppm)



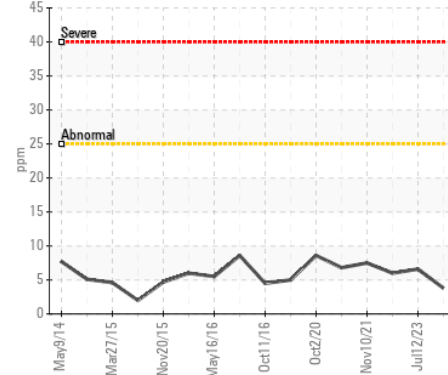
Lead (ppm)



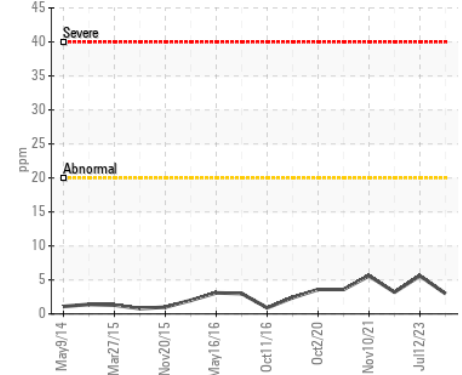
Base Number



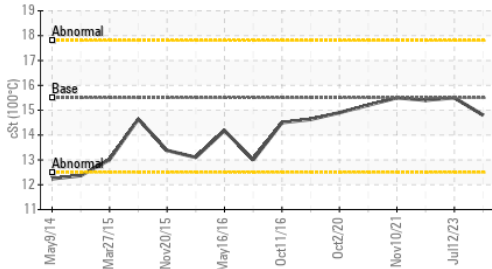
Aluminum (ppm)



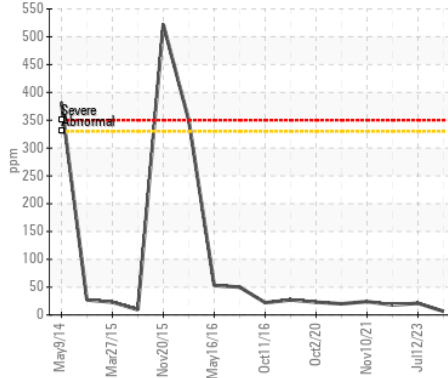
Chromium (ppm)



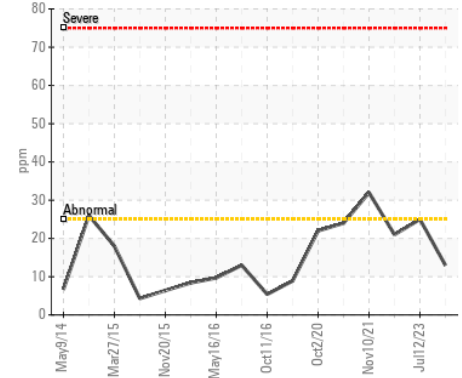
Viscosity @ 100°C



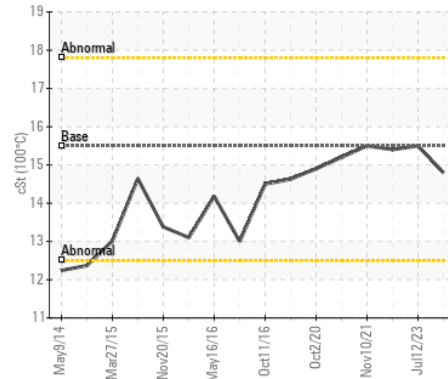
Copper (ppm)



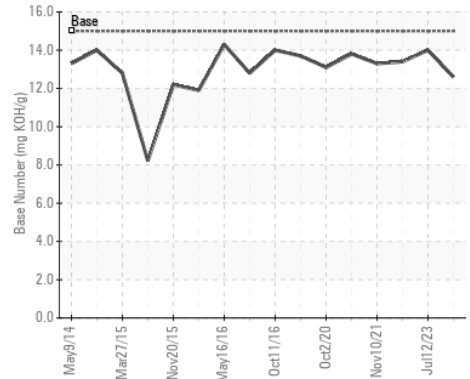
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06055076 **Received** : 08 Jan 2024
Lab Number : 06055076 **Diagnosed** : 10 Jan 2024
Unique Number : 10821025 **Diagnostician** : Sean Felton
Test Package : MOB 2

CHARLES MOORE TRUCKING
 855 KINSEY RD
 MILES CITY, MT
 US 59301
 Contact: KELLY ZIETLOW
 cactus@midrivers.com

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: