



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

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

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR04253486	TR04173034	TR04106564
Sample Date		Client Info		01 Jul 2017	10 Feb 2017	02 Nov 2016
Machine Age	mls	Client Info		329000	287000	262662
Oil Age	mls	Client Info		42000	45000	20000
Filter Age	mls	Client Info		16000	25000	20000
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	65	68	36
Chromium	ppm	ASTM D5185m	>20	2	2	1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	6	7	6
Lead	ppm	ASTM D5185m	>40	5	7	2
Copper	ppm	ASTM D5185m	>330	8	9	9
Tin	ppm	ASTM D5185m	>15	0	4	11
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

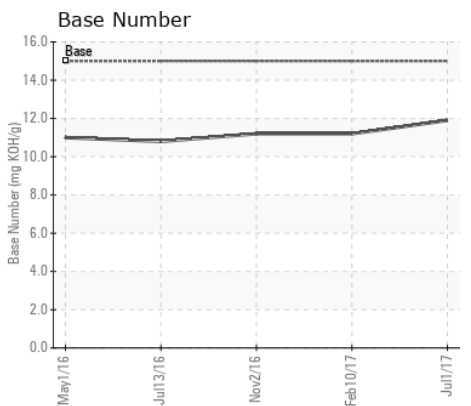
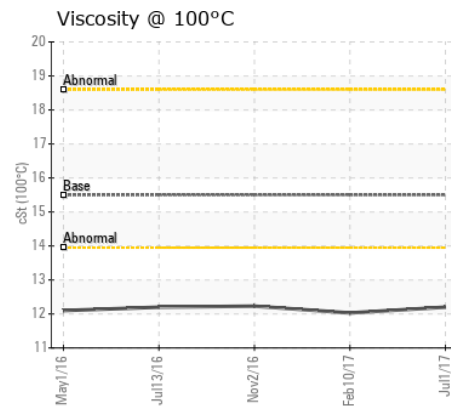
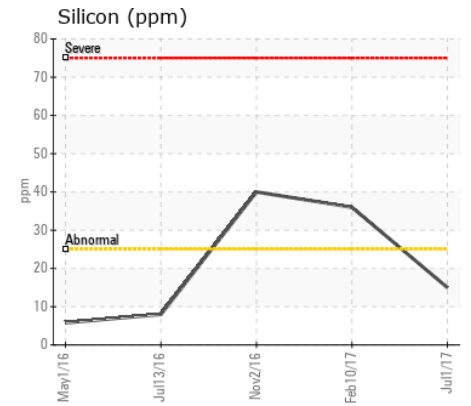
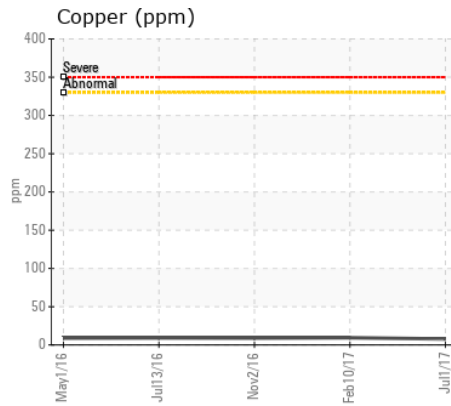
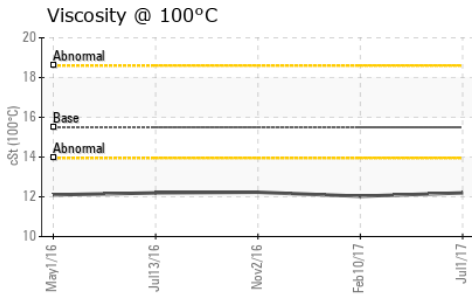
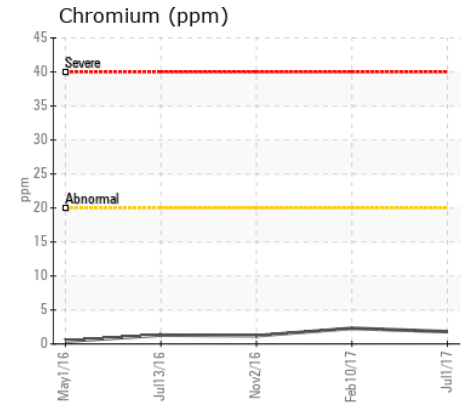
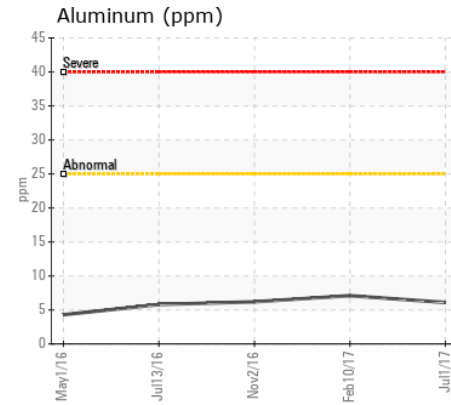
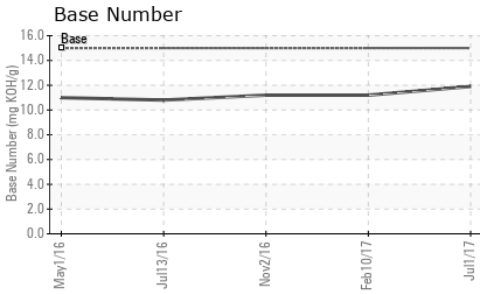
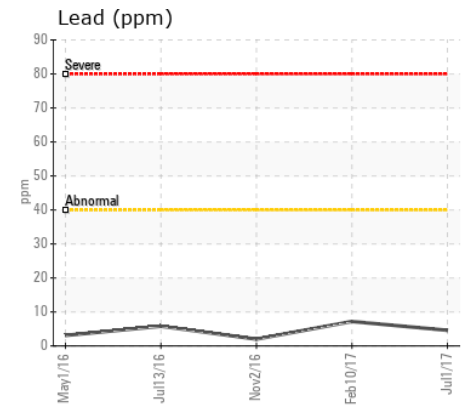
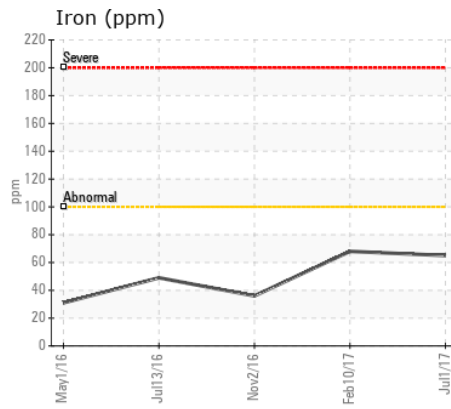
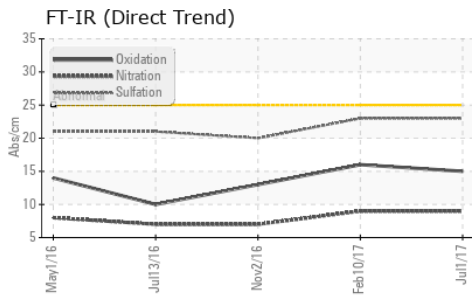
There is no indication of any contamination in the component.

Silicon	ppm	ASTM D5185m	>25	15	▲ 36	▲ 40
Potassium	ppm	ASTM D5185m	>20	4	11	11
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	0.5	0.3	0.1
Nitration	Abs/cm	*ASTM D7624		9.	9.	7.
Sulfation	Abs/.1mm	*ASTM D7415		23.	23.	20.
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		2	6	6
Boron	ppm	ASTM D5185m		140	140	172
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		214	211	200
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		456	405	406
Calcium	ppm	ASTM D5185m	4500	4069	3553	3715
Phosphorus	ppm	ASTM D5185m		765	734	728
Zinc	ppm	ASTM D5185m	1400	931	859	914
Sulfur	ppm	ASTM D5185m		3189	1443	3037
Oxidation	Abs/.1mm	*ASTM D7414		15.	16.	13.
Base Number (BN)	mg KOH/g	ASTM D2896	15	11.9	11.2	11.2
Visc @ 100°C	cSt	ASTM D445	15.5	12.2	12.03	12.23



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR04253486
Lab Number : 04253486
Unique Number : 7846938
Test Package : MOB 2

Received : 30 Jun 2017
Tested : 03 Jul 2017
Diagnosed : 03 Jul 2017 - Wes Davis

JANTZ TRUCKING
 36117 MAD CREEK LN
 RONAN, MT
 US 59864
 Contact: DAN NIGHTENGALE

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: