



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
DODGE RAM 1500
 Component
Gasoline Engine
 Fluid
TRC PRO-SPEC SYNTHETIC 5W20 (7 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06193041	TR06153836	---
Sample Date		Client Info		14 May 2024	18 Mar 2024	---
Machine Age	mls	Client Info		67731	65047	---
Oil Age	mls	Client Info		10504	7820	---
Filter Age	mls	Client Info		10504	7820	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		Changed	Not Changd	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	46	34	---
Chromium	ppm	ASTM D5185m	>20	2	<1	---
Nickel	ppm	ASTM D5185m	>5	1	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>2	1	<1	---
Aluminum	ppm	ASTM D5185m	>40	7	6	---
Lead	ppm	ASTM D5185m	>50	<1	<1	---
Copper	ppm	ASTM D5185m	>155	24	18	---
Tin	ppm	ASTM D5185m	>10	<1	<1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

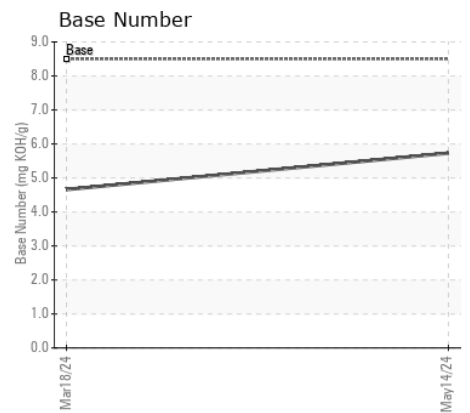
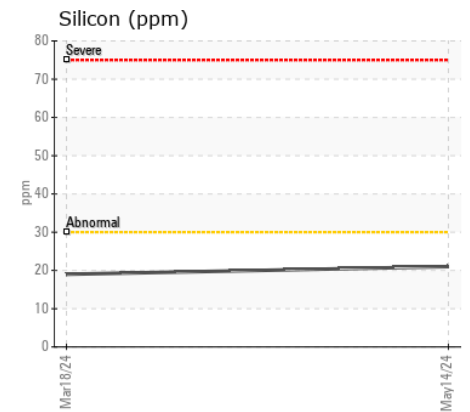
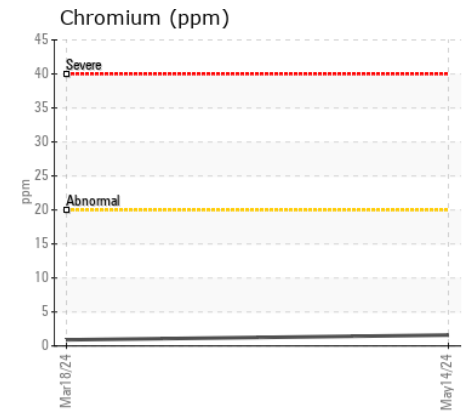
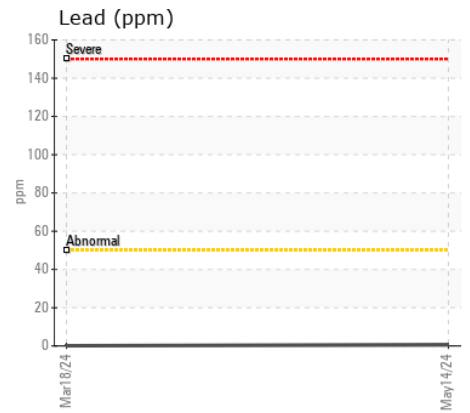
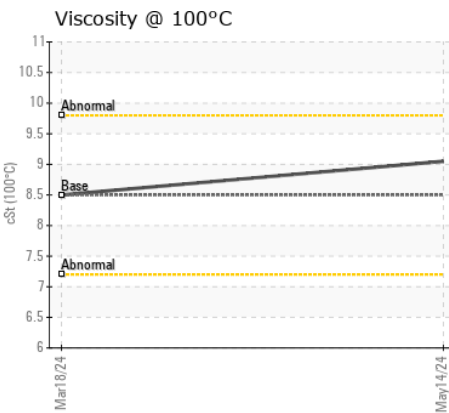
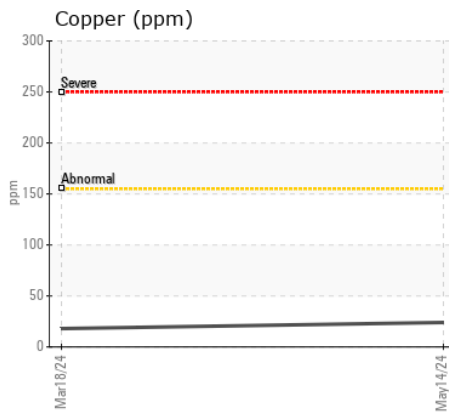
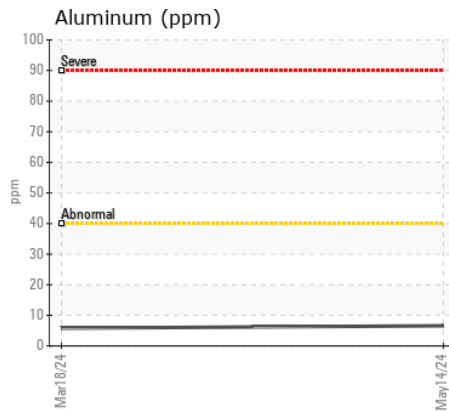
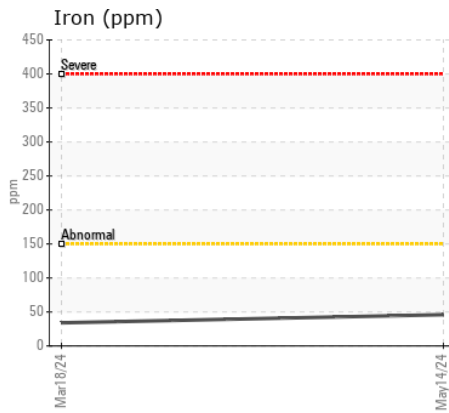
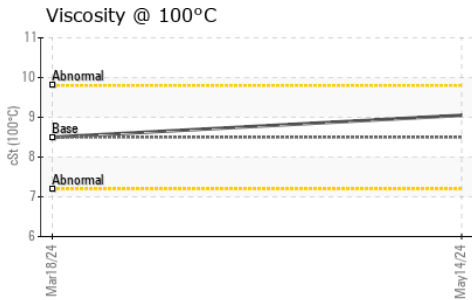
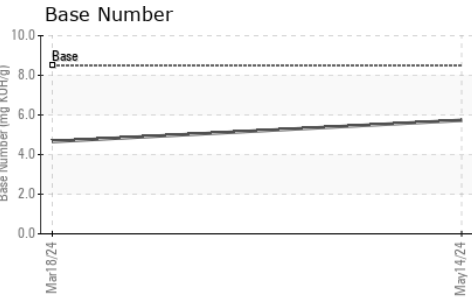
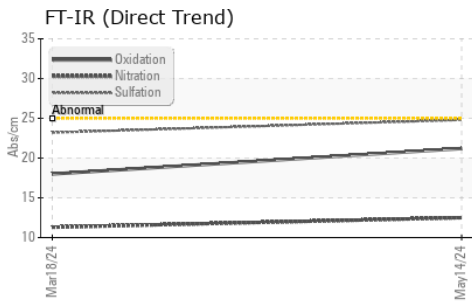
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	21	19	---
Potassium	ppm	ASTM D5185m	>20	2	2	---
Fuel		WC Method	>4.0	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844		0.1	0	---
Nitration	Abs/cm	*ASTM D7624	>20	12.5	11.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.8	23.2	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	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	>400	3	3	---
Boron	ppm	ASTM D5185m		19	21	---
Barium	ppm	ASTM D5185m		1	0	---
Molybdenum	ppm	ASTM D5185m	400	221	199	---
Manganese	ppm	ASTM D5185m		2	<1	---
Magnesium	ppm	ASTM D5185m	600	412	388	---
Calcium	ppm	ASTM D5185m	1500	1178	1067	---
Phosphorus	ppm	ASTM D5185m	800	571	560	---
Zinc	ppm	ASTM D5185m	900	719	674	---
Sulfur	ppm	ASTM D5185m		1862	1742	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.2	18.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.73	4.66	---
Visc @ 100°C	cSt	ASTM D445	8.5	9.05	8.5	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06193041
Lab Number : 06193041
Unique Number : 11049793
Test Package : MOB 2

Received : 28 May 2024
Tested : 03 Jun 2024
Diagnosed : 03 Jun 2024 - Wes Davis

CALVIN KOEHN - KOEHN'S OIL SERVICE
 2802 AA RD
 COPELAND, KS
 US 67837
 Contact: CALVIN KOEHN

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: