



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
CASE IH 290 MAGNUM CASE IH 290 (S/N ZDRD02482)
 Component
Diesel Engine
 Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (5 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05490178	TR04993447	---
Sample Date		Client Info		07 Mar 2022	27 Apr 2020	---
Machine Age		Client Info		4460	3440	---
Oil Age		Client Info		481	500	---
Filter Age		Client Info		481	500	---
Oil Changed		Client Info		Not Chngd	Changed	---
Filter Changed		Client Info		Not Chngd	Changed	---
Sample Status				SEVERE	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	20	10	---
Chromium	ppm	ASTM D5185m	>20	2	<1	---
Nickel	ppm	ASTM D5185m	>4	4	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	4	4	---
Lead	ppm	ASTM D5185m	>40	7	0	---
Copper	ppm	ASTM D5185m	>330	63	37	---
Tin	ppm	ASTM D5185m	>15	1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

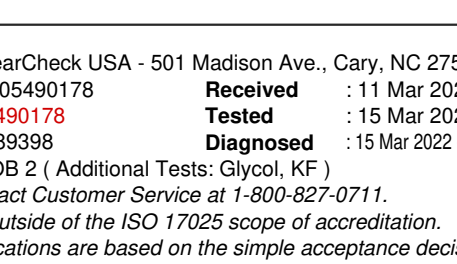
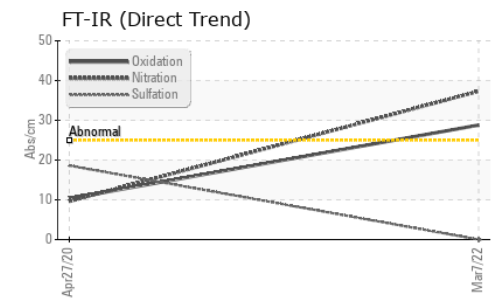
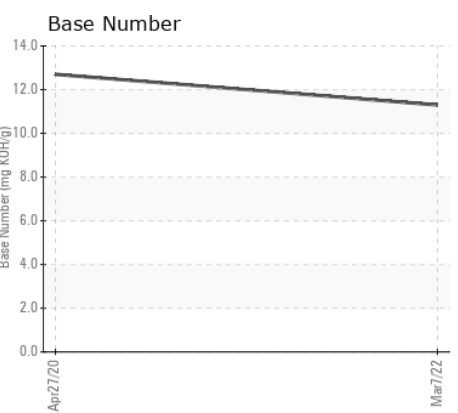
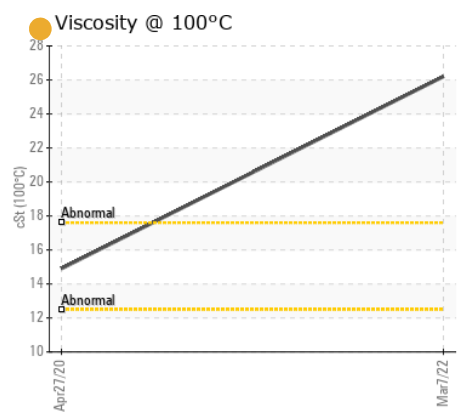
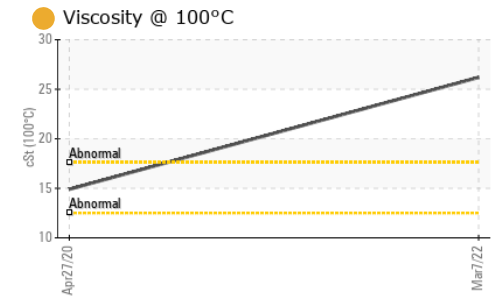
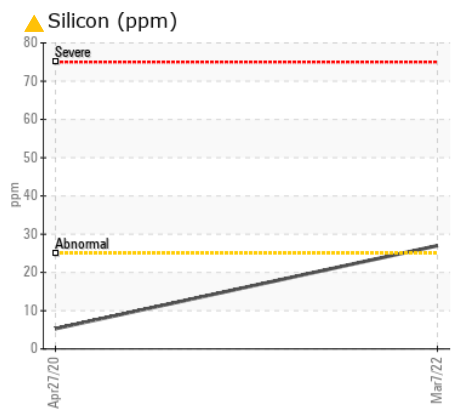
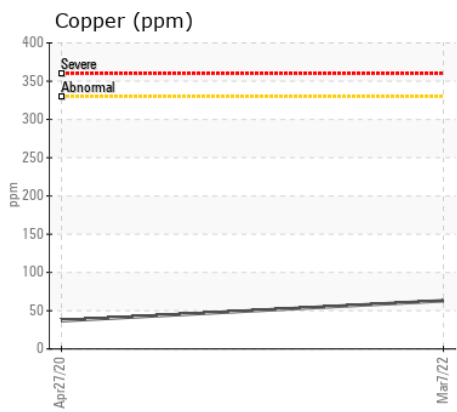
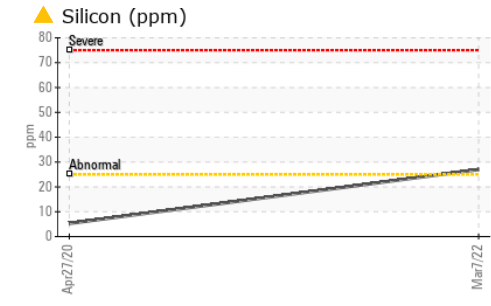
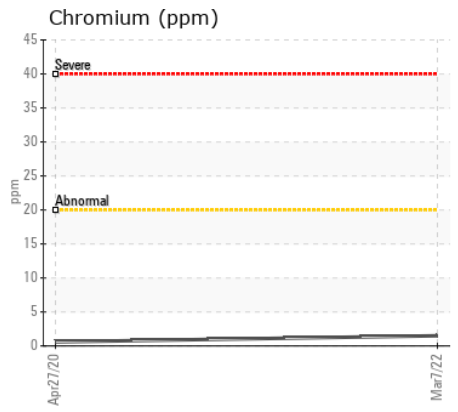
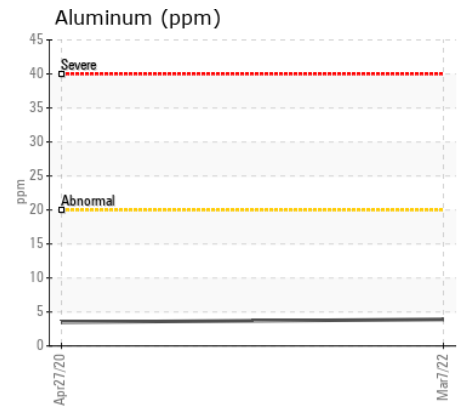
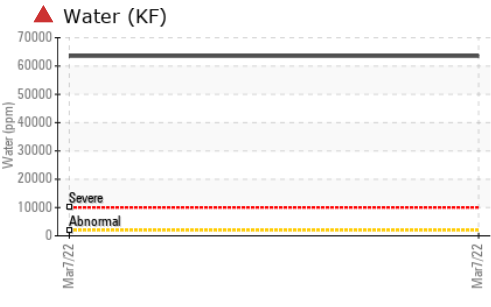
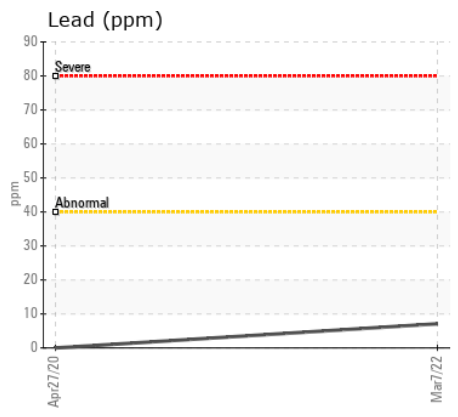
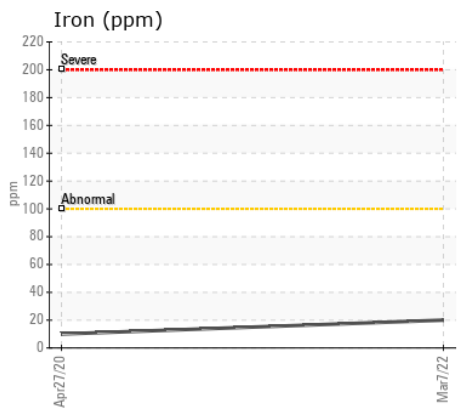
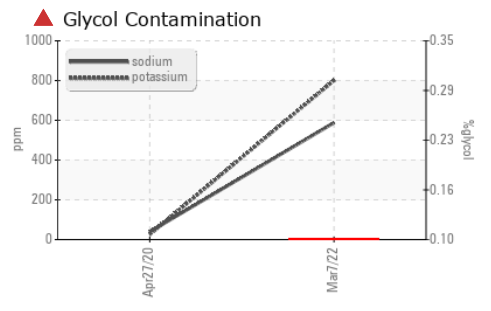
Sodium and/or potassium levels are high. Test for glycol is positive. There is a high concentration of glycol present in the oil. Elemental level of silicon (Si) above normal. Moderate concentration of visible dirt/debris present in the oil. There is a high concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>25	▲ 27	5	---
Potassium	ppm	ASTM D5185m	>20	▲ 800	26	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water	%	ASTM D6304	>0.2	▲ 6.35	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 63500	---	---
Glycol	%	*ASTM D2982		▲ 0.10	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	37.3	9.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	0.0	18.6	---
Silt	scalar	*Visual	NONE	▲ MODER	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	● MILKY	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	NEG	---

FLUID CONDITION

The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		▲ 588	39	---
Boron	ppm	ASTM D5185m		94	2	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		155	128	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m		21	89	---
Calcium	ppm	ASTM D5185m		3545	3733	---
Phosphorus	ppm	ASTM D5185m		1063	815	---
Zinc	ppm	ASTM D5185m		1030	926	---
Sulfur	ppm	ASTM D5185m		3605	3696	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	28.8	10.3	---
Base Number (BN)	mg KOH/g	ASTM D2896		11.3	12.7	---
Visc @ 100°C	cSt	ASTM D445		● 26.2	14.9	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR05490178 **Received** : 11 Mar 2022
Lab Number : 05490178 **Tested** : 15 Mar 2022
Unique Number : 9889398 **Diagnosed** : 15 Mar 2022 - Don Baldrige
Test Package : MOB 2 (Additional Tests: Glycol, KF)

SLATER BROS FARM LLC
 10001 CANAL RD
 HEBRON, OH
 US 43025
 Contact: LARRY HUMPHREY

Certificate L2367
 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)

T:
F: