



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
CHEVROLET 700
 Component
Front Gasoline Engine
 Fluid
PENNZOIL 20W50 (--- LTR)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

Lead ppm levels are abnormal. Bearing wear is indicated.

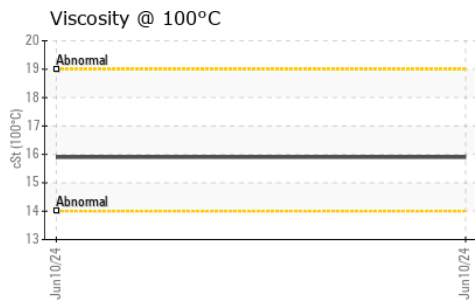
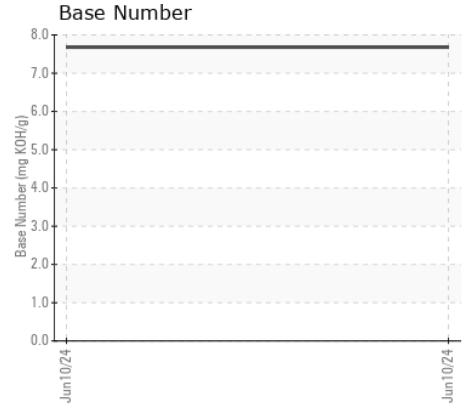
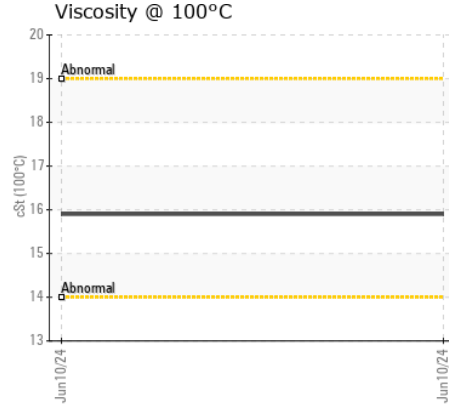
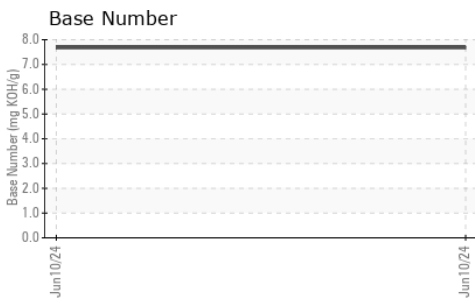
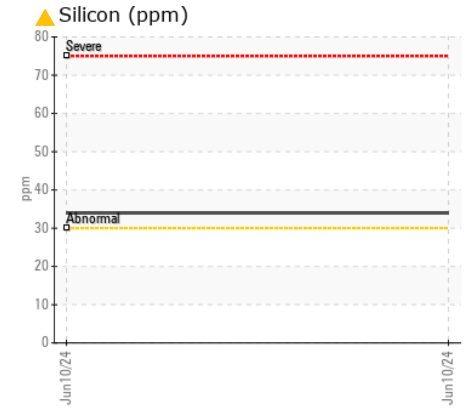
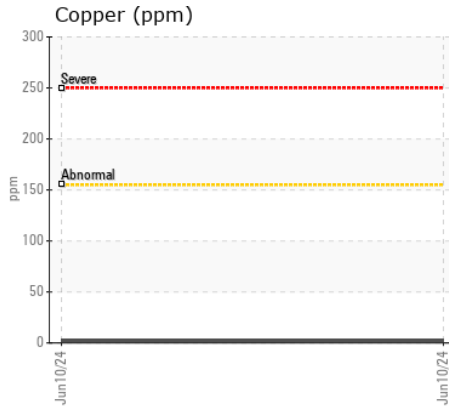
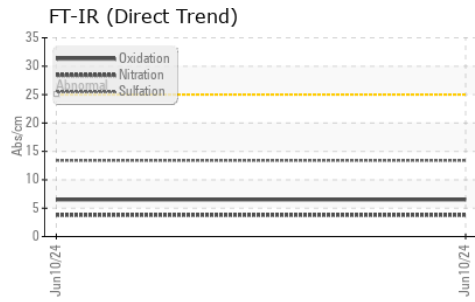
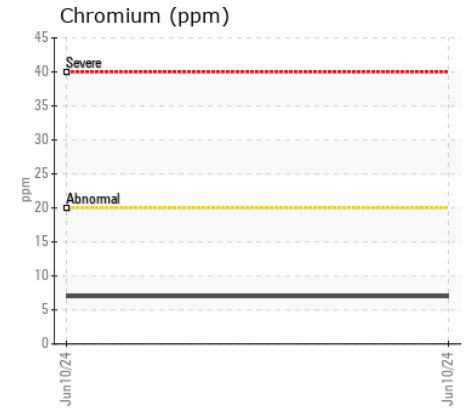
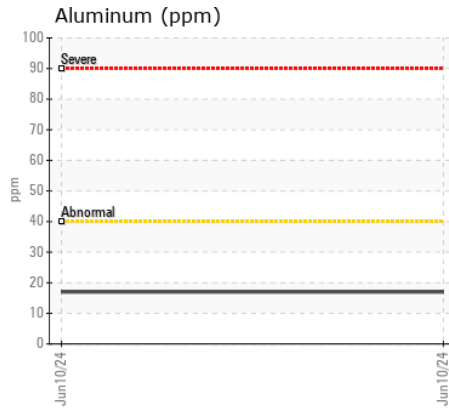
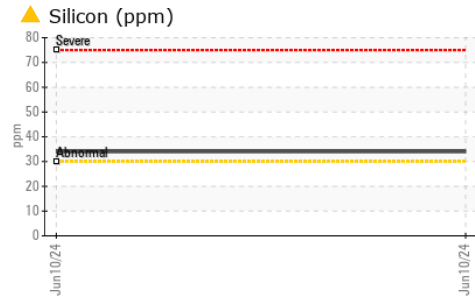
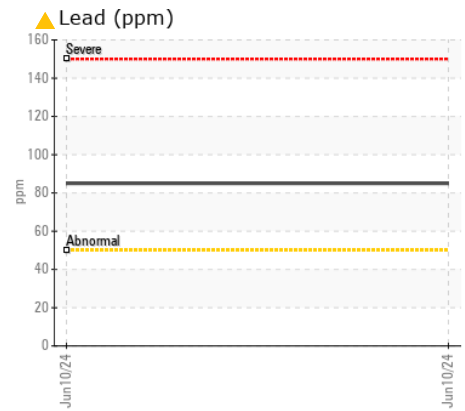
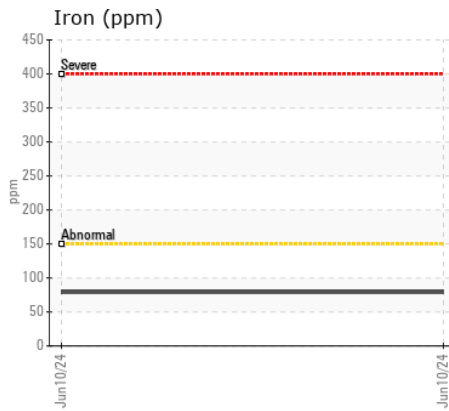
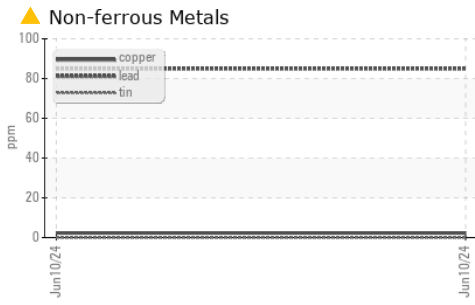
CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR02641674	---	---
Sample Date		Client Info		10 Jun 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		75	---	---
Filter Age	hrs	Client Info		75	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---
<hr/>						
Iron	ppm	ASTM D5185(m)	>150	79	---	---
Chromium	ppm	ASTM D5185(m)	>20	7	---	---
Nickel	ppm	ASTM D5185(m)	>5	<1	---	---
Titanium	ppm	ASTM D5185(m)		<1	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>40	17	---	---
Lead	ppm	ASTM D5185(m)	>50	▲ 85	---	---
Copper	ppm	ASTM D5185(m)	>155	2	---	---
Tin	ppm	ASTM D5185(m)	>10	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
<hr/>						
Silicon	ppm	ASTM D5185(m)	>30	▲ 34	---	---
Potassium	ppm	ASTM D5185(m)	>20	2	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*		0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	3.8	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	13.4	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
<hr/>						
Sodium	ppm	ASTM D5185(m)	>400	4	---	---
Boron	ppm	ASTM D5185(m)		79	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		133	---	---
Manganese	ppm	ASTM D5185(m)		2	---	---
Magnesium	ppm	ASTM D5185(m)		20	---	---
Calcium	ppm	ASTM D5185(m)		1704	---	---
Phosphorus	ppm	ASTM D5185(m)		527	---	---
Zinc	ppm	ASTM D5185(m)		635	---	---
Sulfur	ppm	ASTM D5185(m)		1392	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	6.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*		7.68	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		15.9	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : TR02641674 **Received** : 13 Jun 2024
Lab Number : **02641674** **Tested** : 14 Jun 2024
Unique Number : 5799213 **Diagnosed** : 14 Jun 2024 - Kevin Marson
Test Package : MOB 2

PETROLES TEMIS
 10 RUBE DUBE
 VILLE-MARIE, QC
 CA J9V 1N9
 Contact: Michael Gauthier

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: (819)629-6883
 F: (819)629-2215