



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**CASE 500 QUADTRAC 2012 - CASE 500**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON 15W40 (9 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05750308	---	---
Sample Date		Client Info		05 Jan 2023	---	---
Machine Age	hrs	Client Info		3485	---	---
Oil Age	hrs	Client Info		185	---	---
Filter Age	hrs	Client Info		185	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				<b>NORMAL</b>	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	11	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	<1	---	---
Lead	ppm	ASTM D5185m	>40	7	---	---
Copper	ppm	ASTM D5185m	>330	2	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

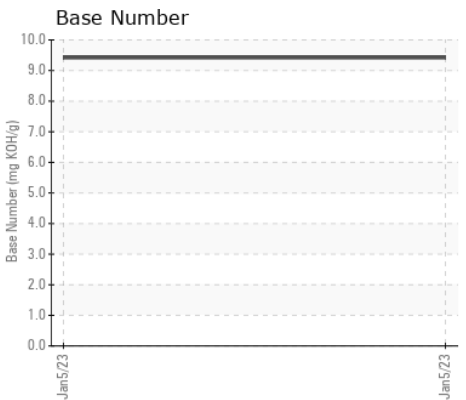
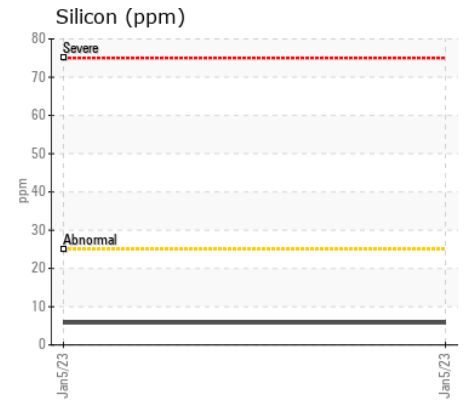
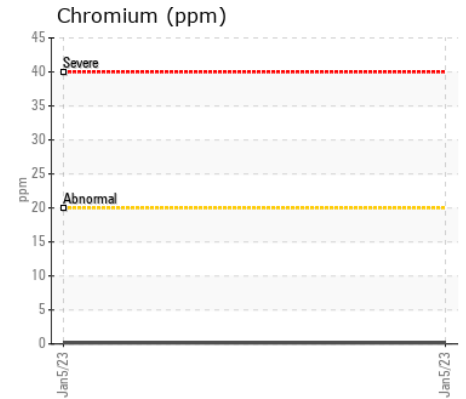
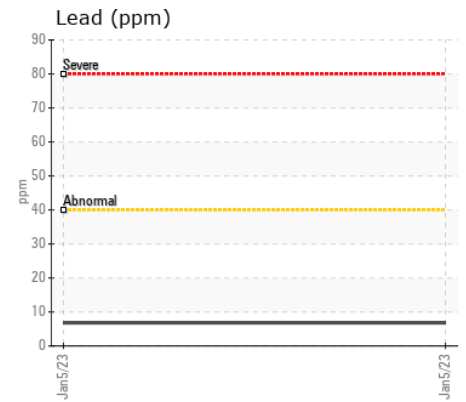
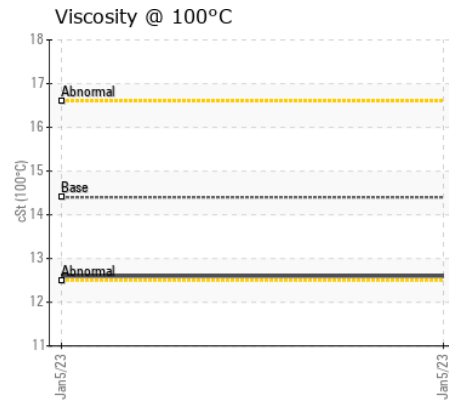
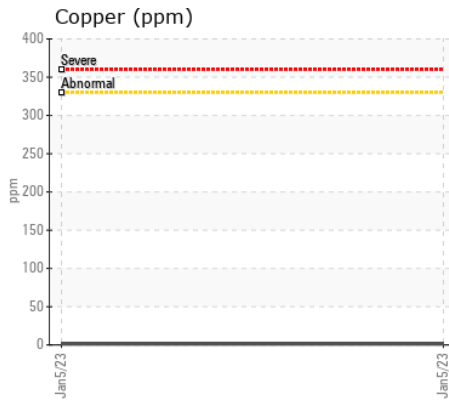
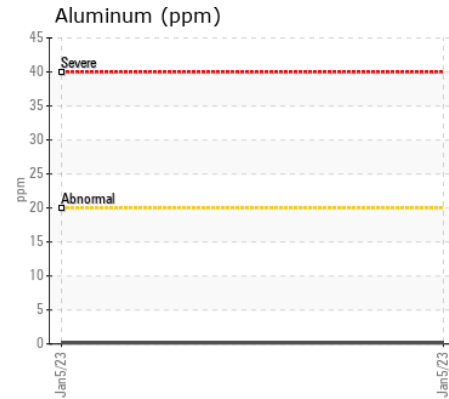
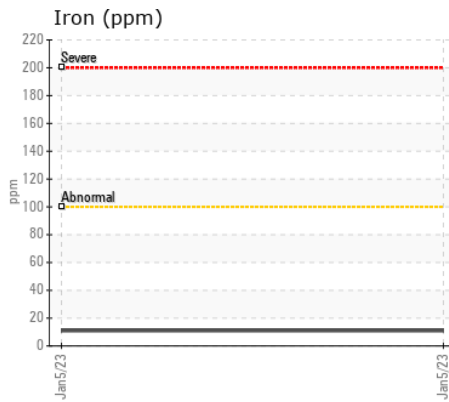
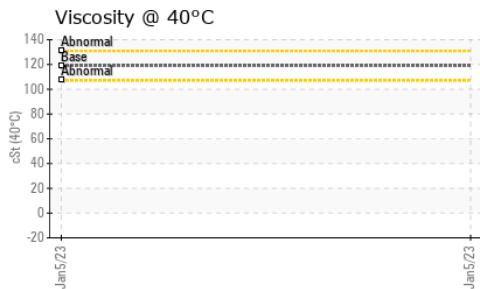
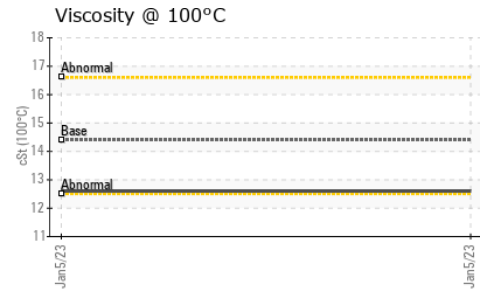
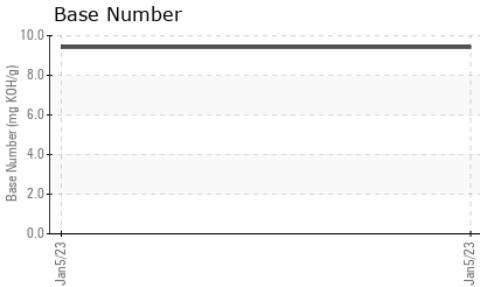
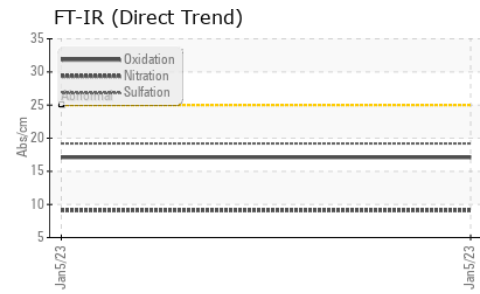
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	9.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	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	>50	2	---	---
Boron	ppm	ASTM D5185m		0	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		65	---	---
Manganese	ppm	ASTM D5185m		12	---	---
Magnesium	ppm	ASTM D5185m		944	---	---
Calcium	ppm	ASTM D5185m		1099	---	---
Phosphorus	ppm	ASTM D5185m		1070	---	---
Zinc	ppm	ASTM D5185m		1266	---	---
Sulfur	ppm	ASTM D5185m		2928	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		9.42	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	12.6	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR05750308 **Received** : 25 Jan 2023  
**Lab Number** : 05750308 **Tested** : 30 Jan 2023  
**Unique Number** : 10309912 **Diagnosed** : 30 Jan 2023 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: KV40 )

**WEST HILLS JV**  
 43667 LAKE RD E  
 SPRAGUE, WA  
 US 99032  
 Contact: RON GROGAN

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: