



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**FORD 2431-22**  
 Component  
**Diesel Engine**  
 Fluid  
**TRC PRO-SPEC III SAE 10W30 (13 GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR02637646	TR02630043	TR02627286
Sample Date		Client Info		02 May 2024	12 Apr 2024	07 Feb 2024
Machine Age	kms	Client Info		45964	41731	37819
Oil Age	kms	Client Info		4233	22455	18543
Filter Age	kms	Client Info		4233	22455	18543
Oil Changed		Client Info		Not Changed	Changed	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	17	76	71
Chromium	ppm	ASTM D5185(m)	>20	2	7	6
Nickel	ppm	ASTM D5185(m)	>2	0	1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	1	2
Aluminum	ppm	ASTM D5185(m)	>25	2	5	5
Lead	ppm	ASTM D5185(m)	>40	0	0	0
Copper	ppm	ASTM D5185(m)	>330	2	10	10
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

## CONTAMINATION

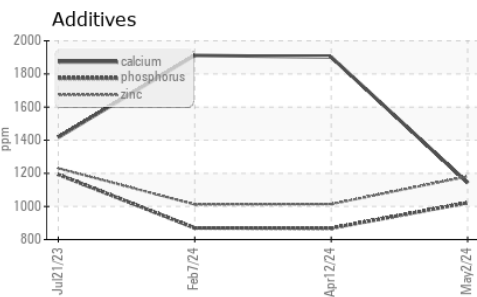
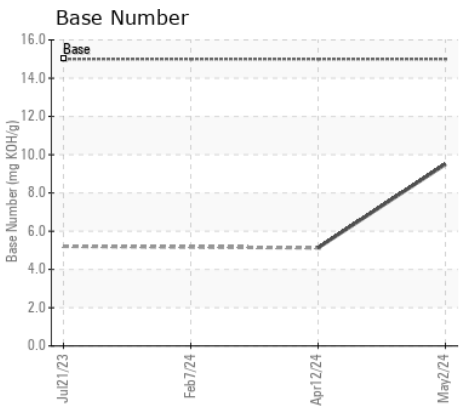
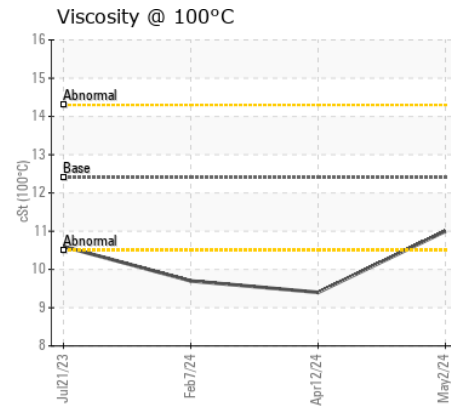
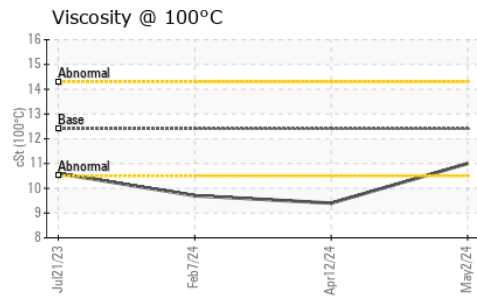
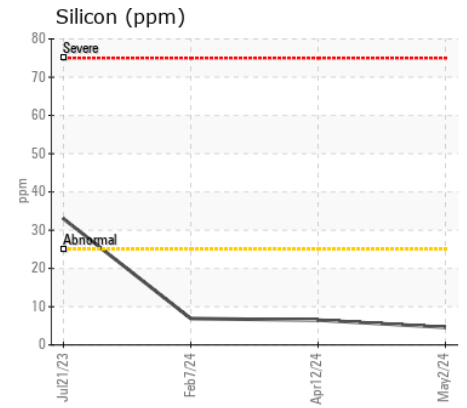
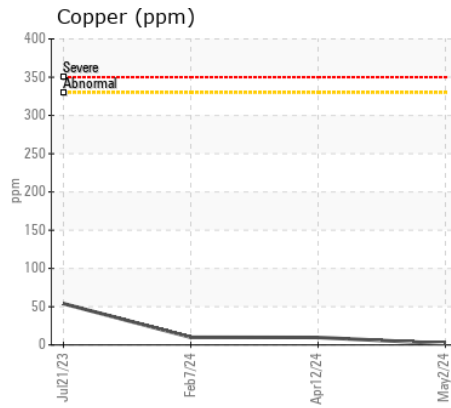
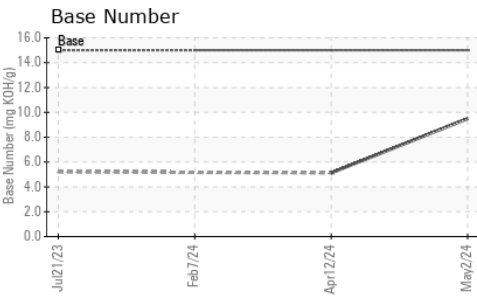
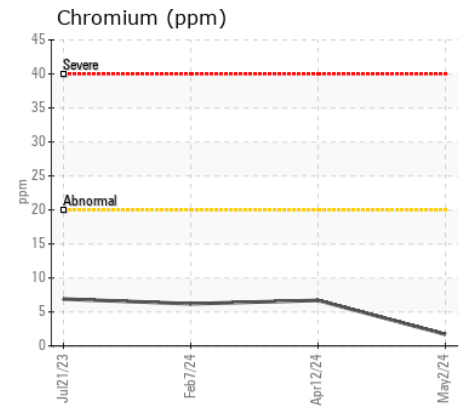
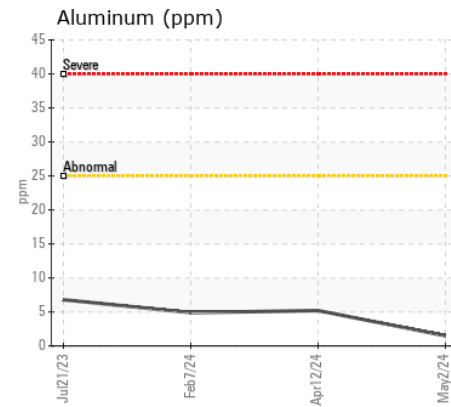
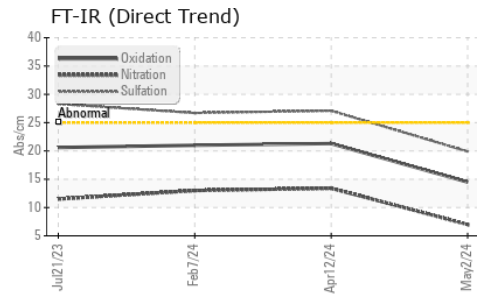
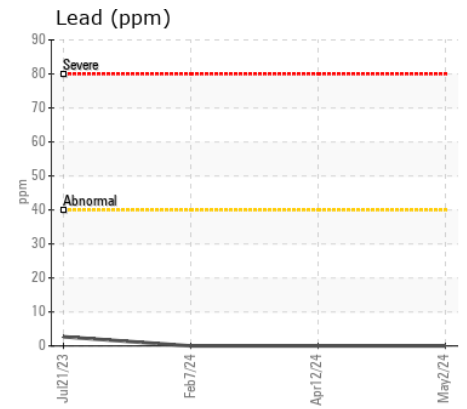
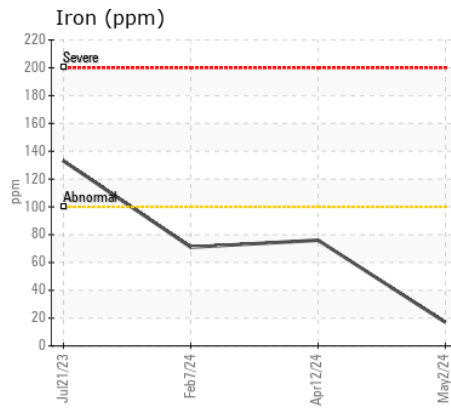
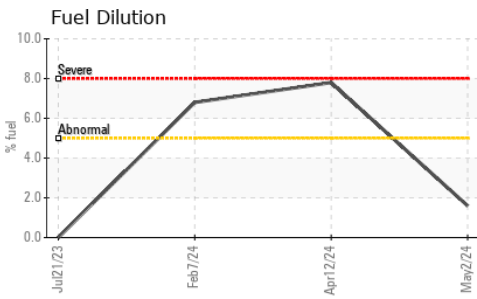
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	6	7
Potassium	ppm	ASTM D5185(m)	>20	<1	3	4
Fuel	%	ASTM D7593*	>5	1.6	▲ 7.8	▲ 6.8
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.2	0.8	0.8
Nitration	Abs/cm	ASTM D7624*	>20	7.0	13.4	13.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.9	27.1	26.7
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

## FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. 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 D5185(m)		3	9	9
Boron	ppm	ASTM D5185(m)		4	19	17
Barium	ppm	ASTM D5185(m)		0	<1	<1
Molybdenum	ppm	ASTM D5185(m)		61	75	76
Manganese	ppm	ASTM D5185(m)		<1	3	2
Magnesium	ppm	ASTM D5185(m)		834	119	134
Calcium	ppm	ASTM D5185(m)	4500	1143	1902	1912
Phosphorus	ppm	ASTM D5185(m)		1022	868	870
Zinc	ppm	ASTM D5185(m)	1400	1181	1014	1012
Sulfur	ppm	ASTM D5185(m)		2655	2808	2831
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.5	21.3	21.0
Base Number (BN)	mg KOH/g	ASTM D2896*	15	9.50	5.13	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.4	11.0	▲ 9.4	▲ 9.7



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : TR02637646 **Received** : 27 May 2024  
**Lab Number** : 02637646 **Tested** : 31 May 2024  
**Unique Number** : 5786808 **Diagnosed** : 31 May 2024 - Kevin Marson  
**Test Package** : MOB 2 ( Additional Tests: PercentFuel )

**WILCO CONTRACTORS**  
 3031 ARTHUR ST  
 ROSSLYN, ON  
 CA P7K 0P2  
 Contact: David Cramer

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: (807)475-5951

F: (807)475-8619