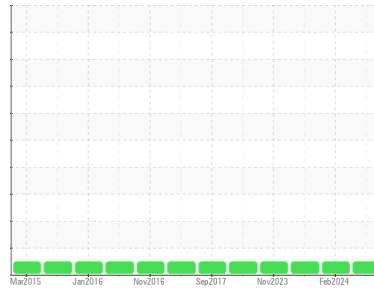


# OIL ANALYSIS REPORT



Area  
**DE Samples - CAT LAB**  
 Machine Id  
**CATERPILLAR 775D 6441 (S/N 8AS00350)**  
 Component  
**Diesel Engine**  
 Fluid  
**TULCO LUBSOIL CK-4 15W40 (--- GAL)**

Sample Rating Trend



**NORMAL**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>TO10003314</b>	TO10001703	TO10003080
Sample Date	Client Info		<b>13 Apr 2024</b>	20 Feb 2024	28 Dec 2023
Machine Age	hrs	Client Info	<b>43619</b>	43280	43061
Oil Age	hrs	Client Info	<b>339</b>	469	250
Oil Changed	Client Info		<b>Not Changed</b>	Changed	Not Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>22</b>	25	17
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>&lt;1</b>	1	1
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>0</b>	1	1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>5</b>	7	6
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 65	<b>65</b>	61	61
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1060	<b>978</b>	959	988
Calcium	ppm	ASTM D5185m 1140	<b>1123</b>	1056	1086
Phosphorus	ppm	ASTM D5185m 1170	<b>1115</b>	1066	1090
Zinc	ppm	ASTM D5185m 1230	<b>1285</b>	1304	1307
Sulfur	ppm	ASTM D5185m 3130	<b>3728</b>	3242	3253

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	2	2
Sodium	ppm	ASTM D5185m	<b>2</b>	1	2
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	0

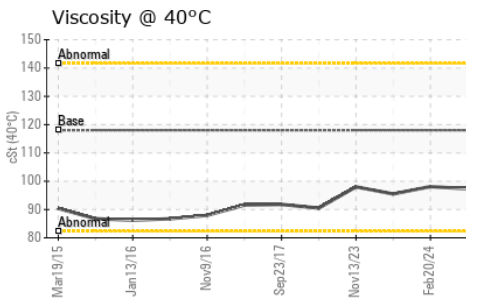
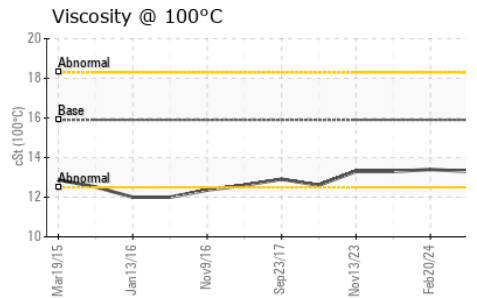
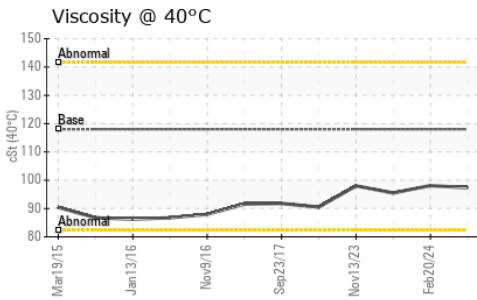
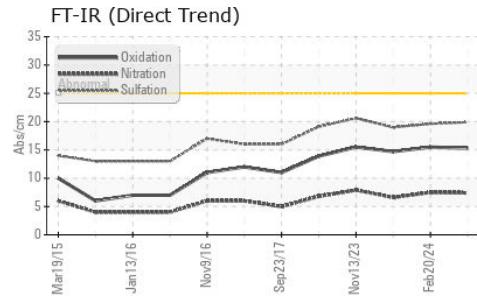
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	0.5	0.4
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.4</b>	7.5	6.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.9</b>	19.6	19.0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.3</b>	15.5	14.7
Base Number (BN)	mg KOH/g	ASTM D2896 10.8	<b>10.07</b>	10.31	9.92

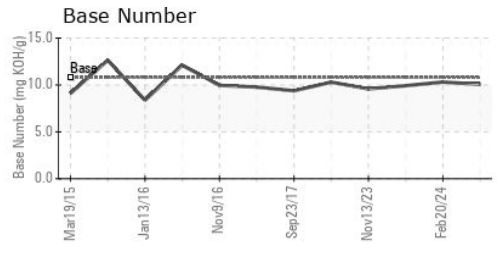
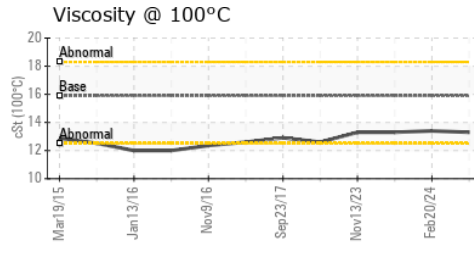
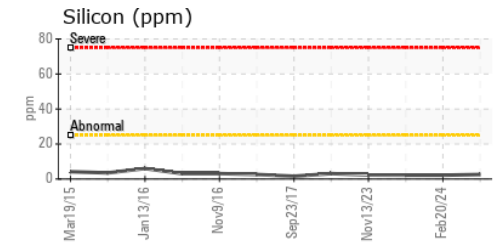
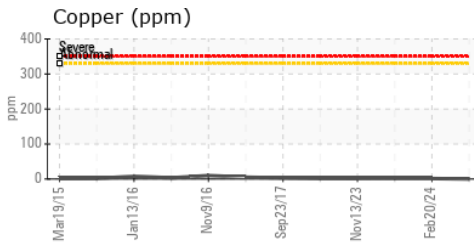
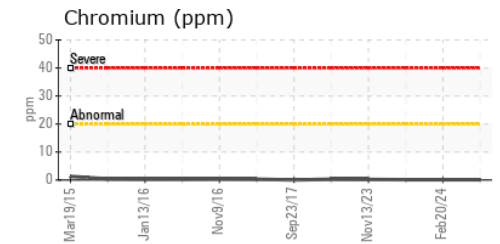
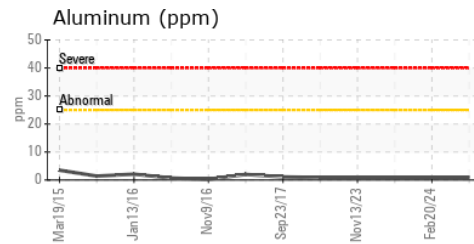
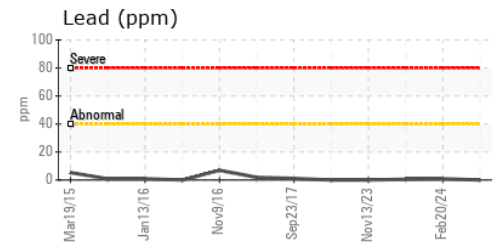
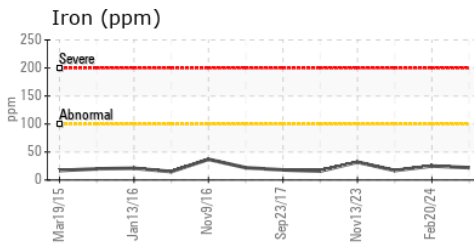
# OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
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
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	118	97.3	98.1
Visc @ 100°C	cSt	ASTM D445	15.9	13.3	13.4
Viscosity Index (VI)	Scale	ASTM D2270	143	135	136

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO10003314  
**Lab Number** : 06157111  
**Unique Number** : 10992534  
**Test Package** : MOB 2 ( Additional Tests: KV40, VI )

**Received** : 22 Apr 2024  
**Tested** : 23 Apr 2024  
**Diagnosed** : 23 Apr 2024 - Wes Davis

**ANCHOR STONE TULSA ROCK**  
 TULSA ROCK QUARRY, 66TH ST N 145TH AVENUE  
 TULSA, OK  
 US 74137

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - 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)

Contact: DAVID MORRIS  
 dmorris@anchorstoneco.com

T:  
 F: