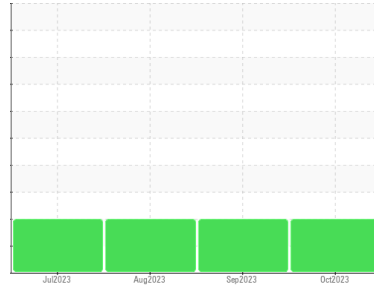




# PROBLEM SUMMARY

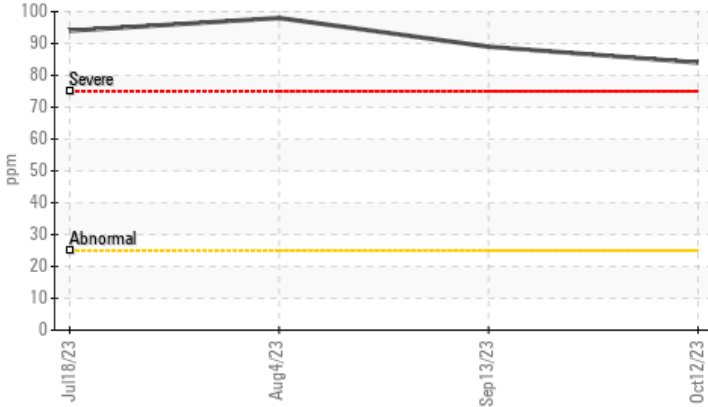
Area  
**ARIZONA**  
 Machine Id  
**2323**  
 Component  
**Diesel Engine**  
 Fluid  
**NAPA Motor Oil 15W40 (--- QTS)**

Sample Rating Trend

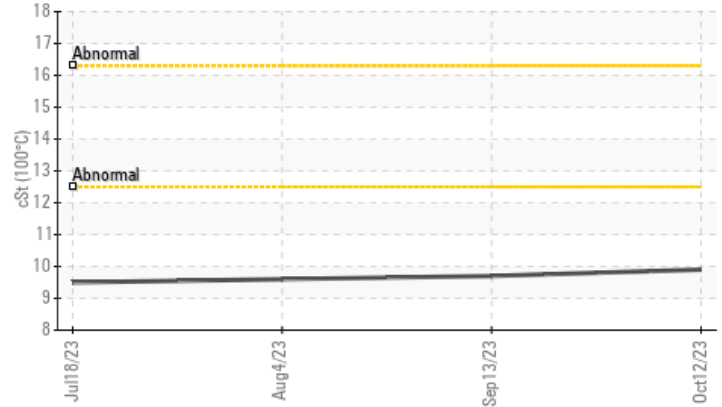


## COMPONENT CONDITION SUMMARY

▲ Silicon (ppm)



▲ Viscosity @ 100°C



## RECOMMENDATION

No corrective action is recommended at this time.  
 Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL	
Silicon	ppm	ASTM D5185m >25	▲ 84	▲ 89	▲ 98
Visc @ 100°C	cSt	ASTM D445	▲ 9.9	▲ 9.7	▲ 9.6

Customer Id: SEAOKL  
 Sample No.: WC0857158  
 Lab Number: 05980124  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 13 Sep 2023 Diag: Jonathan Hester

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report



### 04 Aug 2023 Diag: Don Baldrige

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report



### 18 Jul 2023 Diag: Don Baldrige

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

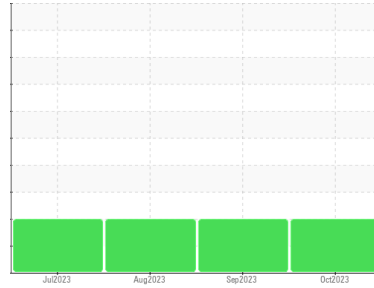
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**DIRT**



Area  
**ARIZONA**  
 Machine Id  
**2323**

Component  
**Diesel Engine**  
 Fluid  
**NAPA Motor Oil 15W40 (--- QTS)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

### Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0857158</b>	WC0838566	WC0825488
Sample Date	Client Info		<b>12 Oct 2023</b>	13 Sep 2023	04 Aug 2023
Machine Age	hrs	Client Info	<b>594</b>	393	202
Oil Age	hrs	Client Info	<b>594</b>	393	202
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>31</b>	24	18
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>1</b>	1	<1
Aluminum	ppm	ASTM D5185m >20	<b>6</b>	8	7
Lead	ppm	ASTM D5185m >40	<b>2</b>	1	0
Copper	ppm	ASTM D5185m >330	<b>318</b>	160	27
Tin	ppm	ASTM D5185m >15	<b>4</b>	4	3
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>267</b>	360	397
Barium	ppm	ASTM D5185m	<b>4</b>	0	2
Molybdenum	ppm	ASTM D5185m	<b>109</b>	120	122
Manganese	ppm	ASTM D5185m	<b>3</b>	3	2
Magnesium	ppm	ASTM D5185m	<b>576</b>	717	679
Calcium	ppm	ASTM D5185m	<b>1413</b>	1537	1404
Phosphorus	ppm	ASTM D5185m	<b>653</b>	659	666
Zinc	ppm	ASTM D5185m	<b>746</b>	802	815
Sulfur	ppm	ASTM D5185m	<b>2072</b>	2673	2500

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>▲ 84</b>	▲ 89	▲ 98
Sodium	ppm	ASTM D5185m	<b>4</b>	4	4
Potassium	ppm	ASTM D5185m >20	<b>7</b>	6	5
Fuel	%	ASTM D3524 >5	<b>&lt;1.0</b>	<1.0	<1.0

## INFRA-RED

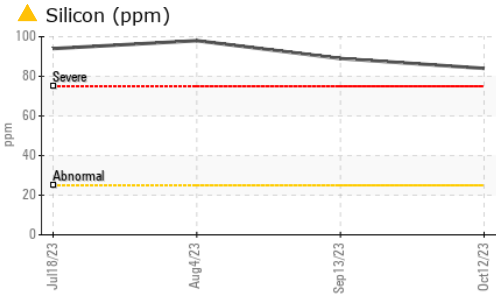
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.5</b>	8.0	6.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.1</b>	23.4	24.9

## FLUID DEGRADATION

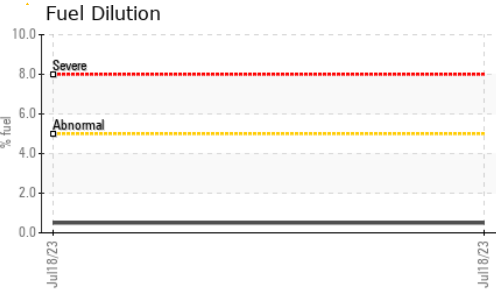
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.7</b>	19.2	19.9
Base Number (BN)	mg KOH/g	ASTM D2896	<b>7.8</b>	8.6	9.1



# OIL ANALYSIS REPORT

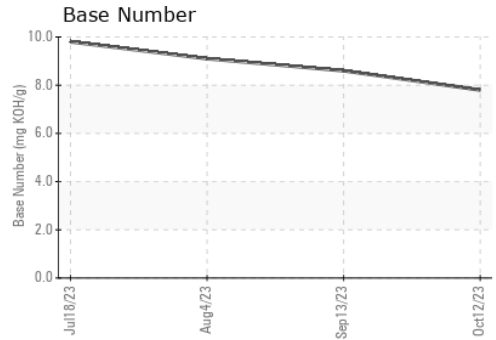
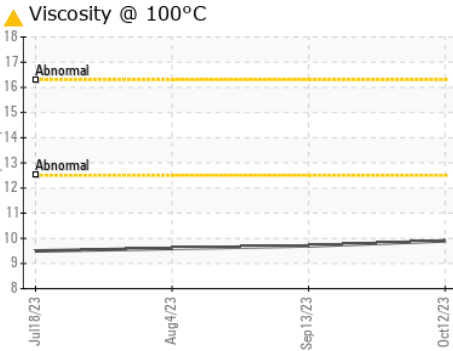
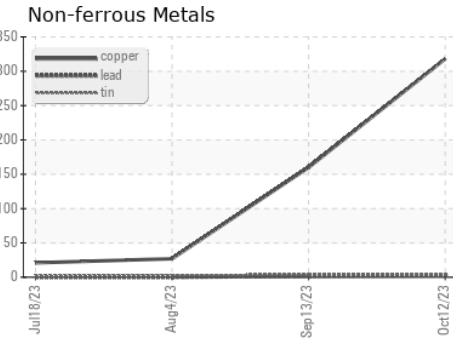
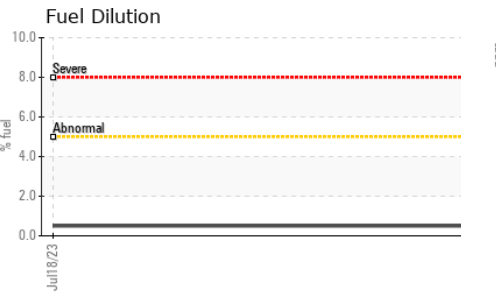
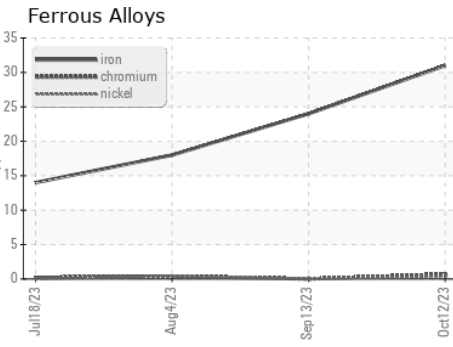
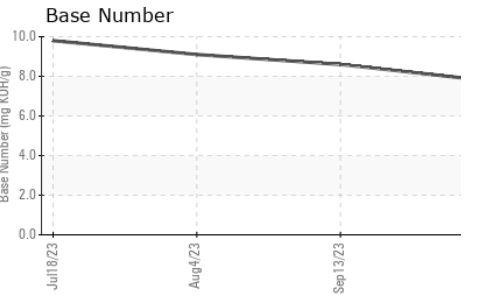


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 @ 100°C	cSt	ASTM D445	▲ 9.9	▲ 9.7	▲ 9.6

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0857158      **Received** : 16 Oct 2023  
**Lab Number** : 05980124      **Diagnosed** : 18 Oct 2023  
**Unique Number** : 10697419      **Diagnostician** : Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution )

**LIBERTY DISPOSAL**  
 6401 S EASTERN AVE  
 OKLAHOMA CITY, OK  
 US 73149  
 Contact: CATHY ROSA  
 c.rosa@ldi89.com

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)

T:  
F: