

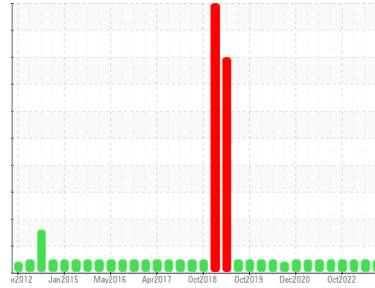


# OIL ANALYSIS REPORT



Area  
**OKLAHOMA/102/EG - EXCAVATOR**  
Machine Id  
**20.113L [OKLAHOMA^102^EG - EXCAVATOR]**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (--- 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>WC0808069</b>	WC0800906	WC0746225
Sample Date	Client Info		<b>02 Aug 2023</b>	14 Apr 2023	23 Nov 2022
Machine Age	hrs	Client Info	<b>10442</b>	10400	8885
Oil Age	hrs	Client Info	<b>257</b>	10442	235
Oil Changed	Client Info		<b>Changed</b>	Changed	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
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>5</b>	2	22
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	2
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>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>&lt;1</b>	<1	3
Lead	ppm	ASTM D5185m >40	<b>1</b>	0	4
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	0	1
Tin	ppm	ASTM D5185m >15	<b>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 0	<b>51</b>	50	6
Barium	ppm	ASTM D5185m 0	<b>2</b>	0	2
Molybdenum	ppm	ASTM D5185m 0	<b>46</b>	36	64
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 0	<b>506</b>	443	962
Calcium	ppm	ASTM D5185m	<b>1823</b>	1472	1117
Phosphorus	ppm	ASTM D5185m	<b>781</b>	656	992
Zinc	ppm	ASTM D5185m	<b>942</b>	796	1276
Sulfur	ppm	ASTM D5185m	<b>2820</b>	2326	3345

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	3	4
Sodium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	4

## INFRA-RED

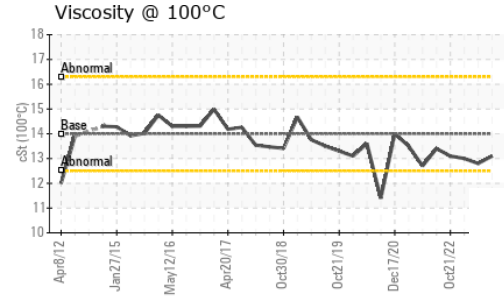
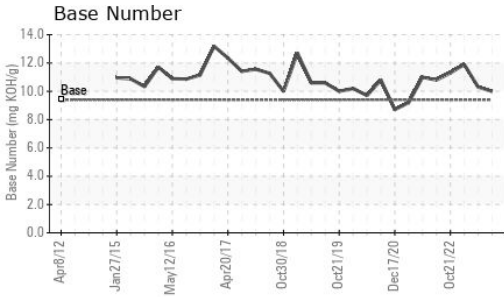
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.5</b>	6.1	5.8
Sulfation	Abs.1mm	*ASTM D7415 >30	<b>21.9</b>	21.6	23.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs.1mm	*ASTM D7414 >25	<b>19.8</b>	19.7	20.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.4	<b>10.0</b>	10.3	11.9



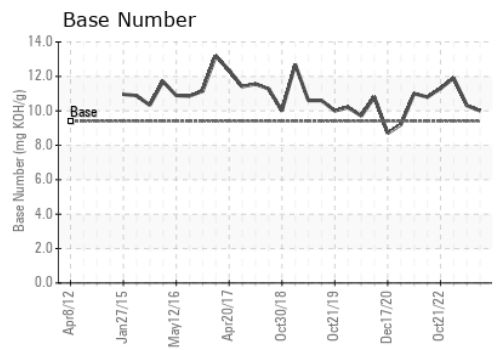
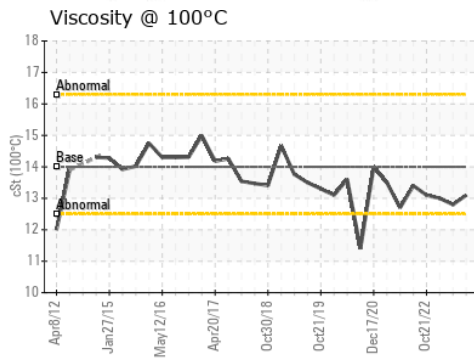
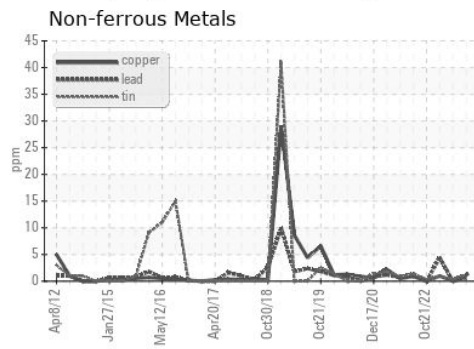
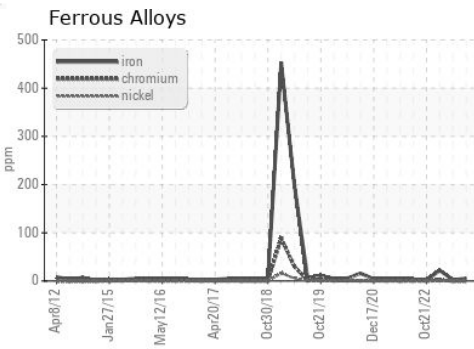
# OIL ANALYSIS REPORT



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	LIGHT
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	14	<b>13.1</b>	12.8	13.0

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0808069 **Received** : 14 Aug 2023  
**Lab Number** : **05923166** **Diagnosed** : 14 Aug 2023  
**Unique Number** : 10603113 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**SHERWOOD CONSTRUCTION CO INC**  
 3219 WEST MAY ST  
 WICHITA, KS  
 US 67213  
 Contact: DOUG KING  
 doug.king@sherwood.net  
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 F: x:

Certificate L2367  
 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)