

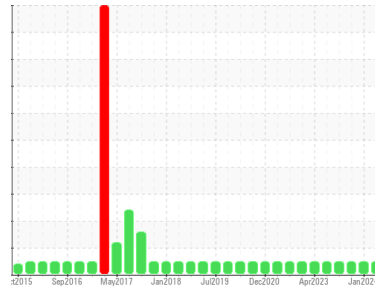


# OIL ANALYSIS REPORT



Area  
**OKLAHOMA/3/EG - EXCAVATOR**  
 Machine Id  
**20.69L [OKLAHOMA^3^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>WC0914453</b>	WC0834092	WC0857248
Sample Date	Client Info		<b>17 Apr 2024</b>	09 Jan 2024	19 Oct 2023
Machine Age	hrs	Client Info	<b>12875</b>	12561	12365
Oil Age	hrs	Client Info	<b>42</b>	196	205
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
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 >75	<b>25</b>	15	33
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >54	<b>3</b>	2	1
Lead	ppm	ASTM D5185m >20	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >240	<b>1</b>	<1	2
Tin	ppm	ASTM D5185m >5	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>40</b>	44	45
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>45</b>	41	44
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 0	<b>585</b>	533	530
Calcium	ppm	ASTM D5185m	<b>2001</b>	1731	1699
Phosphorus	ppm	ASTM D5185m	<b>852</b>	816	730
Zinc	ppm	ASTM D5185m	<b>1030</b>	950	933
Sulfur	ppm	ASTM D5185m	<b>3204</b>	2540	2414

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >35	<b>4</b>	4	6
Sodium	ppm	ASTM D5185m	<b>5</b>	2	5
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	0

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>2.6</b>	1.4	1.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.0</b>	8.9	10.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>27.2</b>	25.1	27.2

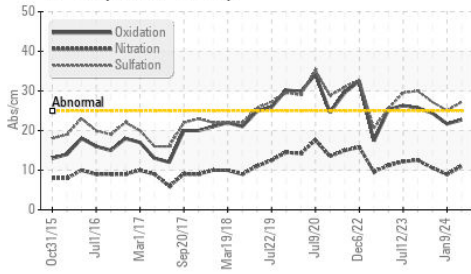
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>22.7</b>	21.7	24.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.4	<b>9.7</b>	9.7	10.6

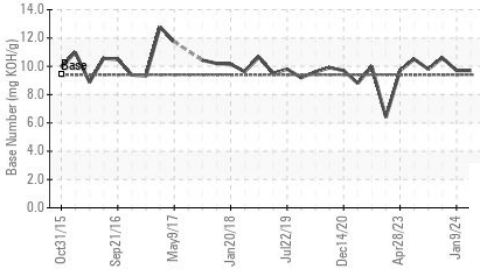


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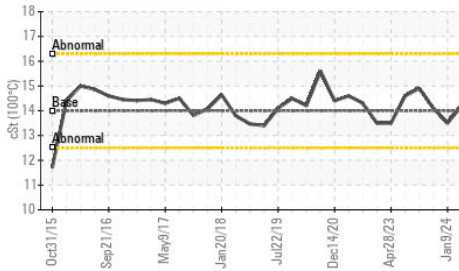
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

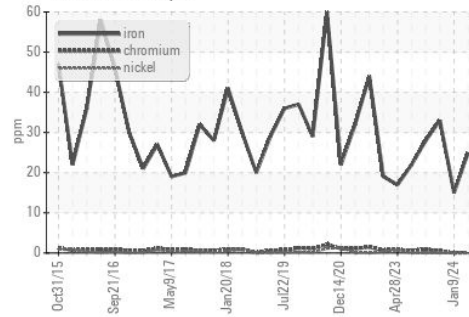


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

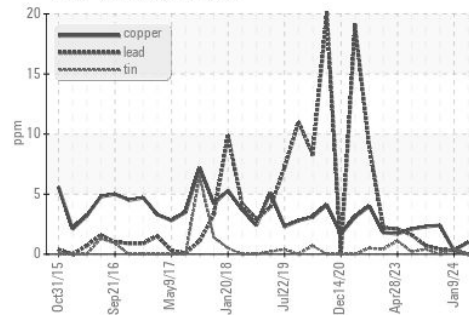
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 14	14.2	13.5	14.1

## GRAPHS

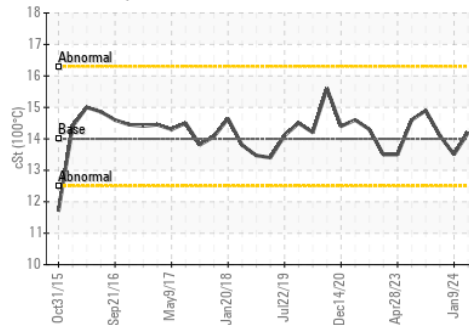
Ferrous Alloys



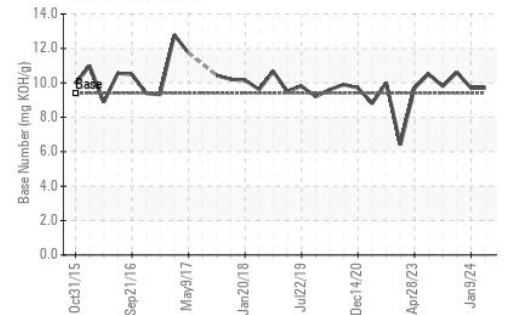
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0914453

Lab Number : 06160086

Unique Number : 10995509

Test Package : CONST ( Additional Tests: TBN )

Received : 25 Apr 2024

Tested : 25 Apr 2024

Diagnosed : 25 Apr 2024 - Wes Davis

SHERWOOD CONSTRUCTION CO INC

3219 WEST MAY ST

WICHITA, KS

US 67213

Contact: DOUG KING

doug.king@sherwood.net

T: (316)617-3161

F: x:

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)