

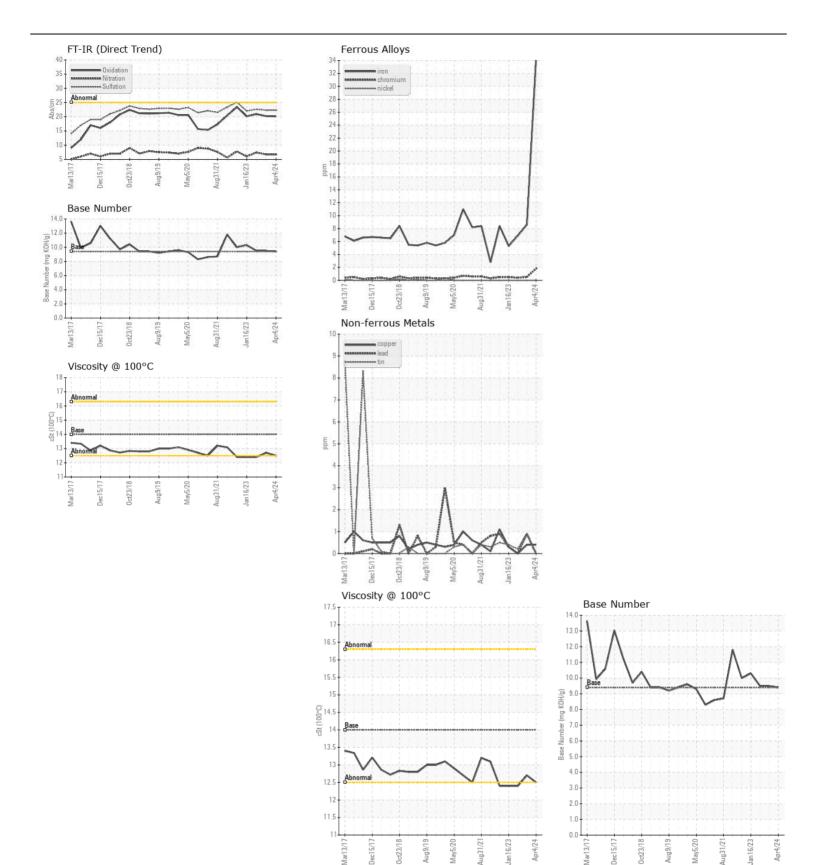
**WEAR CONTAMINATION FLUID CONDITION**  **NORMAL NORMAL NORMAL** 



## OKLAHOMA/102/EG - EXCAVATOR 20.514L [OKLAHOMA^102^EG - EXCAVATOR]

Component Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
IECOMMENDATION	Sample Number	00	Client Info	21111071011	WC0848874	WC0848853	WC0821779
Resample at the next service interval to monitor.	Sample Date		Client Info		04 Apr 2024	18 Dec 2023	08 Jul 2023
	Machine Age	hrs	Client Info		6411	5956	5360
	Oil Age	hrs	Client Info		253	250	320
	Filter Age	hrs	Client Info		253	250	320
	Oil Changed	0	Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	ATTENTION
VEAR	Iron	ppm	ASTM D5185m	>100	34	9	7
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	2	<1	<1
	Nickel	ppm	ASTM D5185m	>2	0	0	0
	Titanium	ppm	ASTM D5185m	>2	0	0	0
	Silver	ppm	ASTM D5185m	>2	0	0	0
	Aluminum	ppm	ASTM D5185m	>25	2	2	2
	Lead	ppm	ASTM D5185m		0	<1	0
	Copper	ppm	ASTM D5185m	>330	<1	<1	0
	Tin	ppm	ASTM D5185m		0	<1	<1
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	12	4	3
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	0	0	0
	Fuel		WC Method	>5	<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.3	0.4	0.3
	Nitration	Abs/cm	*ASTM D7624	>20	6.7	6.7	7.4
	Sulfation	Abs/.1mm	*ASTM D7415		22.3	22.3	22.6
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water		*Visual	>0.2	NEG	NEG	NEG
LUID CONDITION	Sodium	ppm	ASTM D5185m	<b>-</b>	2	2	<1
	Boron	ppm	ASTM D5185m	0	53	46	57
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m	0	0	0	0
	Molybdenum	ppm	ASTM D5185m	0	43	41	45
	Manganese	ppm	ASTM D5185m		<1	<1	0
	Magnesium	ppm	ASTM D5185m	0	559	494	576
	Calcium	ppm	ASTM D5185m		1896	1687	1912
	Phosphorus	ppm	ASTM D5185m		824	790	824
	Zinc	ppm	ASTM D5185m		985	870	1022
	Sulfur	ppm	ASTM D5185m		3276	2422	3246
	Oxidation	Abs/.1mm	*ASTM D7414	>25	20.1	20.2	20.9
							9.5
	Base Number (BN)	mg KOH/g	ASTM D2896	9.4	9.4	9.5	9.0







Certificate L2367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06160082

: WC0848874

Unique Number: 10995505 Test Package : CONST (Additional Tests: TBN)

Received **Tested** Diagnosed

: 25 Apr 2024 : 25 Apr 2024

: 25 Apr 2024 - Wes Davis

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

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.

T: (316)617-3161 F: x: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)