

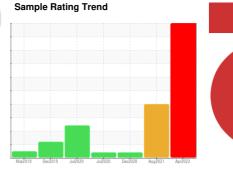
PROBLEM SUMMARY

Area KANSAS/44/EG - EXCAVATOR Machine Id 20.018L [KANSAS^44^EG - EXCAVATOR]



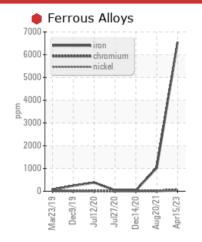
Right Final Drive

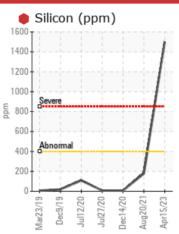
MOBIL DELVAC 1 SYNTHETIC GEAR SAE 75W90 (--- GAL)

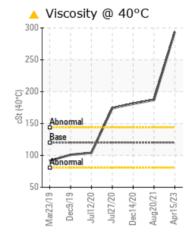


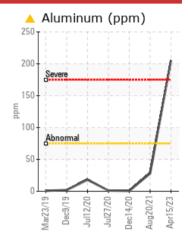


COMPONENT CONDITION SUMMARY









RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE	ABNORMAL	ATTENTION		
Iron	ppm	ASTM D5185m	>800	6543	<u>▲</u> 1028	39		
Chromium	ppm	ASTM D5185m	>10	7 1	▲ 12	<1		
Nickel	ppm	ASTM D5185m	>5	1 6	<1	<1		
Aluminum	ppm	ASTM D5185m	>75	<u> </u>	<u>^</u> 28	<1		
Silicon	ppm	ASTM D5185m	>400	1501	△ 178	7		
Visc @ 40°C	cSt	ASTM D445	120	<u> </u>	187	<u></u> ▲ 181		

Customer Id: SHEWIC Sample No.: WC0833905 Lab Number: 05961491 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:

Don Baldridge +1 don.b505@comcast.net

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

RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Inspect Wear Source			?	We advise that you inspect for the source(s) of wear.		
Change Fluid			?	We recommend that you drain the oil from the component if this has not already been done.		
Resample			?	We recommend an early resample to monitor this condition.		
Check Dirt Access			?	We advise that you check all areas where dirt can enter the system.		

HISTORICAL DIAGNOSIS

20 Aug 2021 Diag: Don Baldridge

DIRT



We advise that you check all areas where dirt can enter the system. We recommend an early resample to monitor this condition. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the oil is acceptable for the time in service.



14 Dec 2020 Diag: Angela Borella

VISCOSITY



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. Confirm oil type.



27 Jul 2020 Diag: Doug Bogart

VISCOSITY



The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. Confirm oil type.





OIL ANALYSIS REPORT

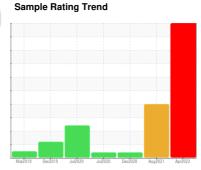


KANSAS/44/EG - EXCAVATOR 20.018L [KANSAS^44^EG - EXCAVATOR]

Right Final Drive

MOBIL DELVAC 1 SYNTHET

Cadmium





DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

Gear wear is indicated.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

▲ Fluid Condition

The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

44^EG - EXCAV <i>E</i>	(I OII)					
FIC GEAR SAE 75W90 (GAL)	Mar2019	Dec2019 Jul2020	Jui2020 Dec2020 Aug2021	Apr2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0833905	WC0543455	WC0511872
Sample Date		Client Info		15 Apr 2023	20 Aug 2021	14 Dec 2020
Machine Age	hrs	Client Info		2561	1649	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Changed
Sample Status				SEVERE	ABNORMAL	ATTENTION
WEAR METALS		method	limit/base	current	history1	history2
						•
Iron	ppm	ASTM D5185m	>800	6543	△ 1028	39
	ppm	ASTM D5185m ASTM D5185m	>800 >10	654371		
Iron					▲ 1028	39
Iron Chromium	ppm	ASTM D5185m	>10 >5	71	▲ 1028 ▲ 12	39 <1
Iron Chromium Nickel	ppm	ASTM D5185m ASTM D5185m	>10 >5	7116	▲ 1028 ▲ 12 <1	39 <1 <1
Iron Chromium Nickel Titanium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>10 >5 >15 >2	71 16 13	▲ 1028 ▲ 12 <1 2	39 <1 <1 0
Iron Chromium Nickel Titanium Silver	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>10 >5 >15 >2	71 16 13 0	▲ 1028 ▲ 12 <1 2 0	39 <1 <1 0 2
Iron Chromium Nickel Titanium Silver Aluminum	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>10 >5 >15 >2 >75 >10	71 16 13 0	▲ 1028 ▲ 12 <1 2 0 ▲ 28	39 <1 <1 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0
Iron Chromium Nickel Titanium Silver Aluminum Lead	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>10 >5 >15 >2 >75 >10	 71 16 13 0 ≥ 205 <1 	▲ 1028 ▲ 12 <1 2 0 ▲ 28 2	39 <1 <1 <0 2 <1 <1 <1
Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>10 >5 >15 >2 >75 >10 >75 >8	 71 16 13 0 205 <1 25 	▲ 1028 ▲ 12 <1 2 0 ▲ 28 2 3	39 <1 <1 <1 0 2 <1 <1 <1 <1

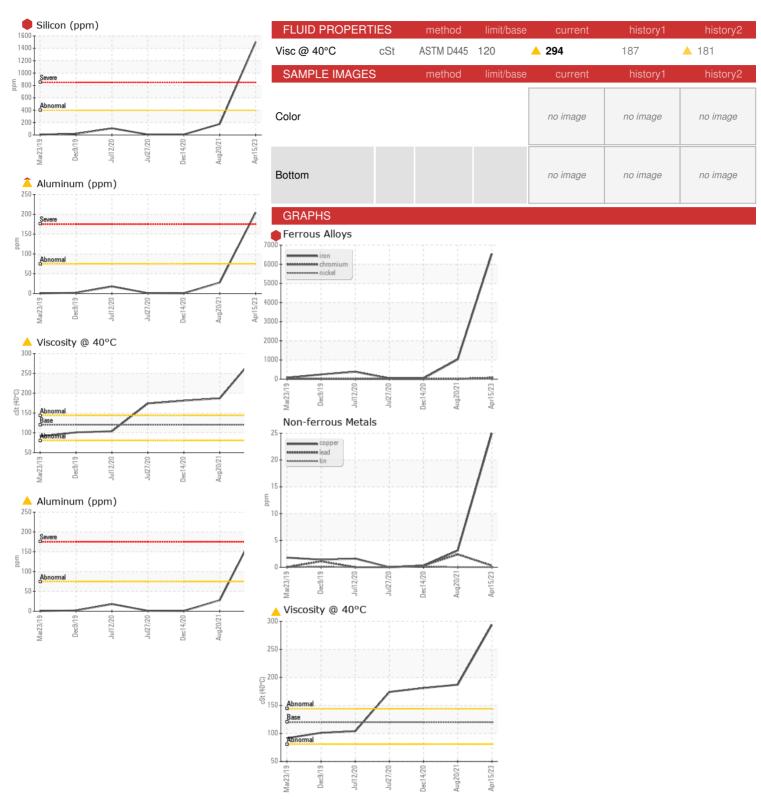
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		231	122	271
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		6	0	0
Manganese	ppm	ASTM D5185m		44	8	<1
Magnesium	ppm	ASTM D5185m		28	3	0
Calcium	ppm	ASTM D5185m		74	48	30
Phosphorus	ppm	ASTM D5185m		1914	1153	1379
Zinc	ppm	ASTM D5185m		25	11	14
Sulfur	ppm	ASTM D5185m		33215	19992	22222

ppm ASTM D5185m

00						
Silicon	ppm	ASTM D5185m	>400	1501	<u></u> 178	7
Sodium	ppm	ASTM D5185m		38	5	<1
Potassium	ppm	ASTM D5185m	>20	92	16	<1
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	VLITE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
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	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NFG	NEG	NFG



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: 05961491 : 10662704 Test Package : CONST

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0833905 Received Diagnosed

: 26 Sep 2023 : 28 Sep 2023 Diagnostician : Don Baldridge

3219 WEST MAY ST WICHITA, KS US 67213 Contact: DOUG KING doug.king@sherwood.net T: (316)617-3161

SHERWOOD CONSTRUCTION CO INC

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: x: