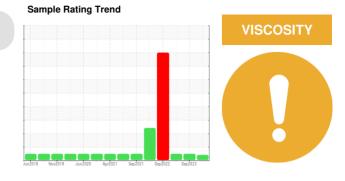


OIL ANALYSIS REPORT

Area **KANSAS/44/EG - EXCAVATOR** 20.140L [KANSAS^44^EG - EXCAVATOR] Component Rear Right Final Drive

MOBIL MOBILTRANS HD 50 (--- GAL)



DIAGNIGOIO

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.

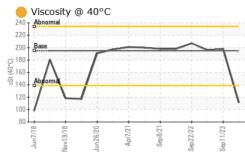
Fluid Condition

The oil viscosity is lower than normal. Confirm oil type.

	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0918397	WC0789910	WC0712229
Sample Date		Client Info		08 May 2024	11 Sep 2023	24 Apr 2023
Machine Age	hrs	Client Info		6208	5806	5630
Oil Age	hrs	Client Info		578	176	291
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				ATTENTION	NORMAL	NORMAL
CONTAMINATION		method	limit/base	current		history2
Water	N	WC Method	>0.2	NEG	history1 NEG	NEG
				-		-
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>800	164	69	49
Chromium	ppm	ASTM D5185m		2	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>15	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m		10	8	3
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	<1	0	<1
Tin	ppm	ASTM D5185m	>8	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		6	1	2
Barium	ppm	ASTM D5185m		0	3	3
Molybdenum	ppm	ASTM D5185m		2	2	2
Manganese	ppm	ASTM D5185m		2	<1	1
		ASTM D5185m		7	12	12
Magnesium	ppm					
Magnesium Calcium	ppm ppm	ASTM D5185m		3062	3088	3052
•		ASTM D5185m ASTM D5185m		3062 1057	3088 1019	3052 1021
Calcium	ppm					
Calcium Phosphorus	ppm ppm	ASTM D5185m		1057	1019	1021
Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base	1057 1227	1019 1302	1021 1227
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	1057 1227 9371	1019 1302 7692	1021 1227 7418
Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method		1057 1227 9371 current	1019 1302 7692 history1	1021 1227 7418 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>400	1057 1227 9371 current 62	1019 1302 7692 history1 31	1021 1227 7418 history2 23
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	>400	1057 1227 9371 current 62 4	1019 1302 7692 history1 31 14	1021 1227 7418 history2 23 6
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>400 >20	1057 1227 9371 current 62 4 1	1019 1302 7692 history1 31 14 0	1021 1227 7418 history2 23 6 0
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m Method	>400 >20 limit/base	1057 1227 9371 current 62 4 1 1 current	1019 1302 7692 history1 31 14 0 history1	1021 1227 7418 history2 23 6 0 0 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method *Visual	>400 >20 limit/base NONE	1057 1227 9371 current 62 4 1 current NONE	1019 1302 7692 history1 31 14 0 history1 NONE	1021 1227 7418 history2 23 6 0 0 history2 MODER
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method *Visual	>400 >20 limit/base NONE NONE	1057 1227 9371 current 62 4 1 current NONE NONE	1019 1302 7692 history1 31 14 0 history1 NONE NONE	1021 1227 7418 history2 23 6 0 0 history2 MODER NONE
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE	1057 1227 9371 current 62 4 1 1 current NONE NONE NONE	1019 1302 7692 history1 31 14 0 history1 NONE NONE NONE NONE	1021 1227 7418 <u>history2</u> 23 6 0 0 <u>history2</u> MODER NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE NONE	1057 1227 9371 current 62 4 1 1 current NONE NONE NONE NONE NONE	1019 1302 7692 history1 31 14 0 history1 NONE NONE NONE NONE NONE	1021 1227 7418 history2 23 6 0 0 history2 MODER NONE NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE NONE NONE	1057 1227 9371 current 62 4 1 1 current NONE NONE NONE NONE NONE NONE	1019 1302 7692 history1 31 14 0 history1 NONE NONE NONE NONE NONE NONE	1021 1227 7418 history2 23 6 0 history2 MODER NONE NONE NONE NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 >20 Iimit/base NONE NONE NONE NONE NONE	1057 1227 9371 62 4 1 1 <u>current</u> NONE NONE NONE NONE NONE NONE NONE	1019 1302 7692 history1 31 14 0 history1 NONE NONE NONE NONE NONE NONE NONE	1021 1227 7418 history2 23 6 0 0 history2 MODER NONE NONE NONE NONE NONE NONE
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 >20 Iimit/base NONE NONE NONE NONE NONE NONE NONE NORE	1057 1227 9371 62 4 1 0urrent NONE NONE NONE NONE NONE NONE NONE NON	1019 1302 7692 history1 31 14 0 history1 NONE NONE NONE NONE NONE NONE NONE NON	1021 1227 7418 history2 23 6 0 0 history2 MODER NONE NONE NONE NONE NONE NONE NONE NO
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 >20 Iimit/base NONE NONE NONE NONE NONE NONE NONE NON	1057 1227 9371 current 62 4 1 1 current NONE NONE NONE NONE NONE NONE NONE NON	1019 1302 7692 history1 31 14 0 history1 NONE NONE NONE NONE NONE NONE NONE NON	1021 1227 7418 23 6 0 history2 MODER NONE NONE NONE NONE NONE NONE NONE NO



OIL ANALYSIS REPORT



	FLUID PROPERT	TES method	d limit/base	e current	history1	history2
	Visc @ 40°C	cSt ASTM D4	45 195	111	198	196
	SAMPLE IMAGES	S method	d limit/base	e current	history1	history2
3	Color			no image	no image	no image
Sep22/22 Sep11/23	Bottom			no image	no image	no image
	GRAPHS					
	Ferrous Alloys					
	1000	Λ				
	800 -	/\				
	틒 600-	/ \				
	400-	/\				
	200-					
	50 19 19 19 19 19 19 19 19 19 19 19 19 19	22				
	Jun7/18 Nov19/18 Jun26/20	Apr7/21 Sep8/21 Sep22/22	Sep11/23			
	Non-ferrous Metal	S				
	6	^				
	2 1 0 81/Linu 81/Cinu 81/Givon	Ap17/21 Sep8/21 Sep22/22	Sep 11/23			
	Viscosity @ 40°C	Ar Sep	Sep			
	240 Abnormal					
	220 - Base	\sim				
	180					
	(2-0+) (2-0+) 3 140 - Abnorma					
	140 Automa 120 -					
	100 -					
	00 Nov19/18	Apr7/21-	Sep11/23			
	uul Jun'	Al Sep.	Sep			
Laboratory Sample No. Lab Number Unique Number		Received Tested	ary, NC 27513 17 May 2024 19 May 2024 21 May 2024 - 5		VOOD CONSTRU 3219 V	UCTION CO INC WEST MAY ST WICHITA, KS US 67213



Unique Number : 11034551 Test Package : CONST Certificate 12367 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)

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Submitted By: KEVIN HOHEISEL