

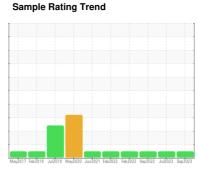
OIL ANALYSIS REPORT



OKLAHOMA/102/EG - EXCAVATOR 20.511L [OKLAHOMA^102^EG - EXCAVATOR]

Component
Rear Left Final Drive

MOBIL MOBILTRANS HD 50 (--- GAL)





Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

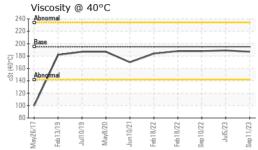
Fluid Condition

The condition of the oil is acceptable for the time in service.

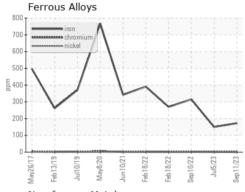
Sample Number	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2	
Sample Date Client Info 11 Sep 2023 05 Jul 2023 10 Sep 2022 Machine Age hrs Client Info 7753 7886 7291 7886 7	Sample Number				WC0848932			
Machine Age hrs Client Info 7753 7686 7291 Oil Age hrs Client Info 7753 395 1000 Oil Changed Client Info Not Changed Changed Changed Sample Status method limit/base current history1 history2 Iron ppm ASTM D5185m >800 173 150 315 Chromium ppm ASTM D5185m >10 <1	·		Client Info		11 Sep 2023	05 Jul 2023	10 Sep 2022	
Oil Age hrs Client Info 7753 395 1000 Oil Changed Sample Status Client Info Not Changed Changed Changed Changed Changed Sample Status NORMAL	•	hrs			•			
Client Info Not Changed Changed Changed NORMAL NORMAL NORMAL NORMAL					7753	395		
NORMAL NORMAL NORMAL NORMAL WEAR METALS method limit/base current history1 history2 history2 liron ppm ASTM D5185m >800 173 150 315	•							
Iron								
Chromium ppm ASTM D5185m >10 <1 <1 2 Nickel ppm ASTM D5185m >5 <1	WEAR METALS		method	limit/base	current	history1	history2	
Nickel	Iron	ppm	ASTM D5185m	>800	173	150	315	
Titanium ppm ASTM D5185m >15 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <td>Chromium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>10</td> <th><1</th> <td><1</td> <td>2</td>	Chromium	ppm	ASTM D5185m	>10	<1	<1	2	
Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >75 6 6 10 Lead ppm ASTM D5185m >10 <1	Nickel	ppm	ASTM D5185m	>5	<1	0	0	
Aluminum ppm ASTM D5185m >75 6 6 10 Lead ppm ASTM D5185m >10 <1	Titanium	ppm	ASTM D5185m	>15	<1	<1	<1	
Lead	Silver	ppm	ASTM D5185m	>2	0	0	0	
Copper ppm ASTM D5185m >75 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Aluminum	ppm	ASTM D5185m	>75	6	6	10	
Tin ppm ASTM D5185m >8 0 <1 <1 Antimony ppm ASTM D5185m >50 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 2 1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 12 10 0 Barium ppm ASTM D5185m 0 0 <1 Molybdenum ppm ASTM D5185m 2 2 3 Manganese ppm ASTM D5185m 2 2 2 3 Manganesium ppm ASTM D5185m 3014 3267 3026 Calcium ppm ASTM D5185m 3014 3267 3026 Phosphorus ppm ASTM D5185m 1024 1091 1101 Silit ppm <th< td=""><td>Lead</td><td>ppm</td><td>ASTM D5185m</td><td>>10</td><th><1</th><td><1</td><td>0</td></th<>	Lead	ppm	ASTM D5185m	>10	<1	<1	0	
Antimony ppm ASTM D5185m >50 Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>75	<1	<1	<1	
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 12 10 0 Barium ppm ASTM D5185m 0 0 <1	Tin	ppm	ASTM D5185m	>8	0	<1	<1	
Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 12 10 0 Barium ppm ASTM D5185m 0 0 <1	Antimony	ppm	ASTM D5185m	>50				
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 12 10 0 Barium ppm ASTM D5185m 0 0 <1	Vanadium	ppm	ASTM D5185m		0	0	0	
Boron	Cadmium	ppm	ASTM D5185m		<1	0	0	
Barium	ADDITIVES		method	limit/base	current	history1	history2	
Molybdenum ppm ASTM D5185m 4 4 3 Manganese ppm ASTM D5185m 2 2 3 Magnesium ppm ASTM D5185m 3014 3267 3026 Phosphorus ppm ASTM D5185m 1024 1091 1001 Zinc ppm ASTM D5185m 1232 1377 1252 Sulfur ppm ASTM D5185m 8433 10316 10060 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >400 30 26 48 Sodium ppm ASTM D5185m >400 30 26 48 Sodium ppm ASTM D5185m >20 3 2 1 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar </td <td>Boron</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>12</th> <td>10</td> <td>0</td>	Boron	ppm	ASTM D5185m		12	10	0	
Manganese ppm ASTM D5185m 2 2 3 Magnesium ppm ASTM D5185m 33 39 29 Calcium ppm ASTM D5185m 3014 3267 3026 Phosphorus ppm ASTM D5185m 1024 1091 1001 Zinc ppm ASTM D5185m 1232 1377 1252 Sulfur ppm ASTM D5185m 8433 10316 10060 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >400 30 26 48 Sodium ppm ASTM D5185m >20 3 2 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE	Barium	ppm	ASTM D5185m		0	0	<1	
Magnesium ppm ASTM D5185m 33 39 29 Calcium ppm ASTM D5185m 3014 3267 3026 Phosphorus ppm ASTM D5185m 1024 1091 1001 Zinc ppm ASTM D5185m 1232 1377 1252 Sulfur ppm ASTM D5185m 8433 10316 10060 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >400 30 26 48 Sodium ppm ASTM D5185m >400 30 26 48 Sodium ppm ASTM D5185m >20 3 2 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE VISUAL method limit/base current history1	Molybdenum	ppm	ASTM D5185m		4	4	3	
Calcium ppm ASTM D5185m 3014 3267 3026 Phosphorus ppm ASTM D5185m 1024 1091 1001 Zinc ppm ASTM D5185m 1232 1377 1252 Sulfur ppm ASTM D5185m 8433 10316 10060 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >400 30 26 48 Sodium ppm ASTM D5185m >400 3 2 0 VISUAL method limit/base current history1 history2 VISUAL method limit/base current history1 history2 VISUAL method limit/base current history1 history2 VISUAL NONE NONE NONE NONE VISUAL NONE NONE NONE NONE <td colspa<="" td=""><td>Manganese</td><td>ppm</td><td>ASTM D5185m</td><td></td><th>2</th><td>2</td><td>3</td></td>	<td>Manganese</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>2</th> <td>2</td> <td>3</td>	Manganese	ppm	ASTM D5185m		2	2	3
Phosphorus ppm ASTM D5185m 1024 1091 1001 Zinc ppm ASTM D5185m 1232 1377 1252 Sulfur ppm ASTM D5185m 8433 10316 10060 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >400 30 26 48 Sodium ppm ASTM D5185m > 20 3 2 0 VISUAL method limit/base current history1 history2 VISUAL method limit/base current history1 history2 VISUAL method limit/base current history1 history2 VISUAL NONE NONE NONE NONE Visual NONE NONE NONE NONE Visual NONE NONE NONE NONE NONE	Magnesium	ppm	ASTM D5185m		33	39	29	
Zinc ppm ASTM D5185m 1232 1377 1252 Sulfur ppm ASTM D5185m 8433 10316 10060 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >400 30 26 48 Sodium ppm ASTM D5185m >400 2 <1	Calcium	ppm	ASTM D5185m		3014	3267	3026	
SulfurppmASTM D5185m84331031610060CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>400302648SodiumppmASTM D5185m02<1	Phosphorus	ppm	ASTM D5185m		1024	1091	1001	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >400 30 26 48 Sodium ppm ASTM D5185m 0 2 <1 Potassium ppm ASTM D5185m >20 3 2 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE MODER NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Zinc	ppm	ASTM D5185m		1232	1377	1252	
Silicon ppm ASTM D5185m >400 30 26 48 Sodium ppm ASTM D5185m 0 2 <1 Potassium ppm ASTM D5185m >20 3 2 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE MODER NONE 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 NORML	Sulfur	ppm	ASTM D5185m		8433	10316	10060	
Sodium ppm ASTM D5185m 0 2 <1 Potassium ppm ASTM D5185m >20 3 2 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE 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 NORML NORML NORML NORML Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual >0.2 NEG NEG NEG	CONTAMINANTS		method	limit/base	current	history1	history2	
PotassiumppmASTM D5185m>20320VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEMODERNONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Silicon	ppm	ASTM D5185m	>400	30	26	48	
White Metal scalar *Visual NONE NONE MODER NONE 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 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	Sodium	ppm	ASTM D5185m		0	2	<1	
White Metal scalar *Visual NONE NONE MODER NONE 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	Potassium	ppm	ASTM D5185m	>20	3	2	0	
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	VISUAL		method	limit/base	current	history1	history2	
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		scalar						
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Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Emulsified Water scalar *Visual >0.2 NEG NEG NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
Free Water scalar *Visual NEG NEG NEG	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	NEG	



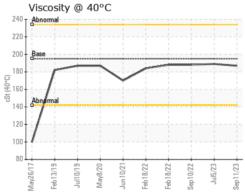
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	195	187	189	188
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image



Non-ferrous Metals







Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10660050 Test Package : CONST

: WC0848932 : 05958837

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 22 Sep 2023 Diagnosed : 24 Sep 2023

Diagnostician : Don Baldridge

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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