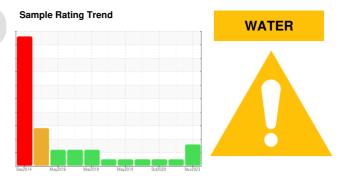


PROBLEM SUMMARY

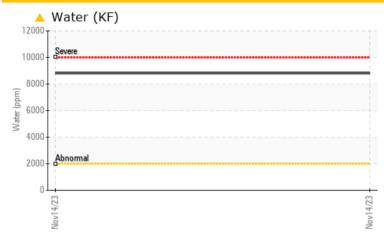
COLORADO/443 Machine Id 41.23W [COLORADO^443]

Right Chain Case

MOBIL MOBILTRANS AST 30 (--- GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of water entry. Resample at the next service interval to monitor.

PROBLEMATIC 1	TEST RESULTS						
Sample Status				ABNORMAL	NORMAL	NORMAL	
Water	%	ASTM D6304	>0.2	△ 0.881	NEG	NEG	
nnm Water	nnm	ASTM D6304	>2000	A 8810			

Customer Id: SHEWIC Sample No.: WC0859628 Lab Number: 06010378 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data: Sean Felton +1 919-379-4092 sfelton@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Check Water Access			?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

15 Jul 2021 Diag: Jonathan Hester





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



27 Oct 2020 Diag: Don Baldridge

NORMAL



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



16 Dec 2019 Diag: Don Baldridge

NORMAL



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



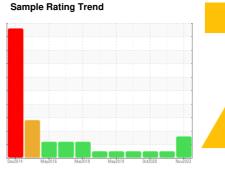


OIL ANALYSIS REPORT

COLORADO/443 41.23W [COLORADO^443]

Right Chain Case

MOBIL MOBILTRANS AST 30 (--- GAL)





DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is a moderate concentration of water present in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in

Sample Number Client Info WC0859628 WC09595281 WC048963 Sample Date Client Info 14 Nov 2023 15 Jul 2021 27 Oct 202 Machine Age hrs Client Info 5215 0 0 Oil Age hrs Client Info 5215 0 0 Oil Changed Client Info Not Changd Not Changd N/A N/A Sample Status method limit/base current history1 history1 Iron ppm ASTM D5165m >3 <1			Dec2014	May2016 Mar2018	May2019 Oct2020	Nov2023	
Sample Date Client Info 14 Nov 2023 15 Jul 2021 27 Oct 202 Machine Age hrs Client Info 7015 5564 5013 Oil Age hrs Client Info 5215 0 0 0 Oil Changed Client Info Not Changd ABNORMAL N/A NORMAL N/A NORMAL NORMAL WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >632 76 35 56 Chromium ppm ASTM D5185m >3 <1	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 7015 5564 5013 Oil Age hrs Client Info 5215 0 0 Oil Changed Client Info Not Changd Not Changd NATM DSI MSI NORMAL NORMAL WEAR METALS method limit/base current history1 history1 Iron ppm ASTM DSI 85m >632 76 35 56 Chromium ppm ASTM DSI 85m >3 <1	Sample Number		Client Info		WC0859628	WC0595281	WC0489630
Oil Age hrs Client Info 5215 0 0 Not Changd ABNORMAL NAT Changd NA	Sample Date		Client Info		14 Nov 2023	15 Jul 2021	27 Oct 2020
Oil Changed Sample Status Client Info Not Changd ABNORMAL ABNORMAL NORMAL NORMAL NORMAL N/A NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL WEAR METALS method Imitibase current current history1 history1 Iron ppm ASTM D5185m pm ASTM D	Machine Age	hrs	Client Info		7015	5564	5013
Sample Status method limit/base current history1 history1 Iron ppm ASTM D5185m >632 76 35 56 Chromium ppm ASTM D5185m >3 -1 <1	Oil Age	hrs	Client Info		5215	0	0
Sample Status method limit/base current history1 history1 Iron ppm ASTM D5185m >632 76 35 56 Chromium ppm ASTM D5185m >3 -1 <1	Oil Changed		Client Info		Not Changd	Not Changd	N/A
Iron	-				_		NORMAL
Chromium ppm ASTM D5185m >3 <1 <1 <1 Nickel ppm ASTM D5185m >3 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>632	76	35	56
Titanium ppm ASTM D5185m <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 <1 <td>Chromium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>3</td> <th><1</th> <td><1</td> <td><1</td>	Chromium	ppm	ASTM D5185m	>3	<1	<1	<1
Silver	Nickel	ppm	ASTM D5185m	>3	<1	1	<1
Aluminum	Titanium	ppm	ASTM D5185m		<1	<1	<1
Lead ppm ASTM D5185m >6 0 0 <1 Copper ppm ASTM D5185m >46 2 <1	Silver	ppm	ASTM D5185m		<1	0	<1
Copper ppm ASTM D5185m >46 2 <1 <1 Tin ppm ASTM D5185m >3 0 0 0 Antimory ppm ASTM D5185m >5 0 0 Vanadium ppm ASTM D5185m <1	Aluminum	ppm	ASTM D5185m	>19	3	1	2
Copper ppm ASTM D5185m >46 2 <1 <1 Tin ppm ASTM D5185m >3 0 0 0 Antimony ppm ASTM D5185m >5 0 0 Vanadium ppm ASTM D5185m <1	Lead	ppm	ASTM D5185m	>6	0	0	<1
Tin ppm ASTM D5185m >3 0 0 0 Antimony ppm ASTM D5185m >5 0 0 Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 102 78 40 Barium ppm ASTM D5185m 4 0 0 Molybdenum ppm ASTM D5185m 1 0 2 Manganese ppm ASTM D5185m 1 1 1 1 1 Manganesium ppm ASTM D5185m 1559 1958 2971 1 Phosphorus ppm ASTM D5185m 1559 1958 2971 27 965 Zinc ppm ASTM D5185m 749 727 965 3 22	Copper	ppm	ASTM D5185m	>46	2	<1	<1
Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history Boron ppm ASTM D5185m 102 78 40 Barium ppm ASTM D5185m 4 0 0 Manganese ppm ASTM D5185m 1 0 2 Manganesium ppm ASTM D5185m 434 566 19 Calcium ppm ASTM D5185m 434 566 19 Calcium ppm ASTM D5185m 749 727 965 Zinc ppm ASTM D5185m 789 888 1230 Sulfur ppm ASTM D5185m 82 22 17 25 Sodium ppm ASTM D5185m 282 22 17 25 Sodium ppm ASTM D5185m 20 4 <th< td=""><td>Tin</td><td>ppm</td><td>ASTM D5185m</td><td>>3</td><th>0</th><td>0</td><td>0</td></th<>	Tin	ppm	ASTM D5185m	>3	0	0	0
Vanadium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 102 78 40 Barium ppm ASTM D5185m 4 0 0 Molybdenum ppm ASTM D5185m 4 0 0 Manganese ppm ASTM D5185m 41 <1	Antimony	ppm	ASTM D5185m	>5		0	0
Boron	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron	Cadmium		ASTM D5185m		<1	0	0
Barium ppm ASTM D5185m 4 0 0 Molybdenum ppm ASTM D5185m 1 0 2 Manganese ppm ASTM D5185m <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 1 0 2 Manganese ppm ASTM D5185m <1 <1 <1 <1 Magnesium ppm ASTM D5185m 434 566 19 Calcium ppm ASTM D5185m 1559 1958 2971 Phosphorus ppm ASTM D5185m 749 727 965 Zinc ppm ASTM D5185m 789 888 1230 Sulfur ppm ASTM D5185m 4910 3739 4316 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >82 22 17 25 Sodium ppm ASTM D5185m >20 4 0 <1 Water % ASTM D5185m 22 3 2 2 Potassium ppm ASTM D5185m >20 4 0 <1 NEG Water	Boron	ppm	ASTM D5185m		102	78	40
Manganese ppm ASTM D5185m <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 <1 <td>Barium</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>4</th> <td>0</td> <td>0</td>	Barium	ppm	ASTM D5185m		4	0	0
Manganese ppm ASTM D5185m <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 <1 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>1</th> <td>0</td> <td>2</td>	Molybdenum	ppm	ASTM D5185m		1	0	2
Calcium ppm ASTM D5185m 1559 1958 2971 Phosphorus ppm ASTM D5185m 749 727 965 Zinc ppm ASTM D5185m 789 888 1230 Sulfur ppm ASTM D5185m 4910 3739 4316 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m 82 22 17 25 Sodium ppm ASTM D5185m 82 22 3 2 Potassium ppm ASTM D5185m >20 4 0 <1	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus ppm ASTM D5185m 749 727 965 Zinc ppm ASTM D5185m 789 888 1230 Sulfur ppm ASTM D5185m 4910 3739 4316 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >82 22 17 25 Sodium ppm ASTM D5185m >82 2 3 2 Potassium ppm ASTM D5185m >20 4 0 <1	Magnesium	ppm	ASTM D5185m		434	566	19
Zinc ppm ASTM D5185m 789 888 1230 Sulfur ppm ASTM D5185m 4910 3739 4316 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >82 22 17 25 Sodium ppm ASTM D5185m >20 4 0 <1	Calcium	ppm	ASTM D5185m		1559	1958	2971
Zinc ppm ASTM D5185m 789 888 1230 Sulfur ppm ASTM D5185m 4910 3739 4316 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >82 22 17 25 Sodium ppm ASTM D5185m >20 4 0 <1 Water % ASTM D5185m >20 0.2 0.881 0 <1 </td <td>Phosphorus</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>749</th> <td>727</td> <td>965</td>	Phosphorus	ppm	ASTM D5185m		749	727	965
CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >82 22 17 25 Sodium ppm ASTM D5185m 2 3 2 Potassium ppm ASTM D5185m >20 4 0 <1 Water % ASTM D6304 >0.2 ▲ 0.881 NEG	Zinc	ppm	ASTM D5185m		789	888	1230
Silicon ppm ASTM D5185m >82 22 17 25 Sodium ppm ASTM D5185m 2 3 2 Potassium ppm ASTM D5185m >20 4 0 <1 Water % ASTM D6304 >0.2 0.881 NEG NEG ppm Water ppm ASTM D6304 >2000 8810 NEG NEG VISUAL method limit/base current history1 history1 White Metal scalar *Visual NONE NONE 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 NORML	Sulfur	ppm	ASTM D5185m		4910	3739	4316
Sodium ppm ASTM D5185m 2 3 2 Potassium ppm ASTM D5185m >20 4 0 <1 Water % ASTM D6304 >0.2 △ 0.881 NEG NEG ppm Water ppm ASTM D6304 >2000 △ 8810 VISUAL method limit/base current history1 history White Metal scalar *Visual NONE NONE MODER MODER Yellow Metal scalar *Visual NONE 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 COdor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 0.2% NEG NEG	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 4 0 <1 Water % ASTM D6304 >0.2 △ 0.881 NEG NEG ppm Water ppm ASTM D6304 >2000 △ 8810 VISUAL method limit/base current history1 history White Metal scalar *Visual NONE NONE MODER MODER Yellow Metal scalar *Visual NONE 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 NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Codor scalar *Visual NORML NORML NORML NORML Codor scalar *Visual NORML NORML NORML NORML Codor Scalar *Visual NORML NORML NORML Codor Scalar *Visual NORML NORML NORML Codor Scalar *Visual NORML NORML NORML Codor NORML NORML NORML Codor NEG	Silicon	ppm	ASTM D5185m	>82	22	17	25
Water	Sodium	ppm	ASTM D5185m		2	3	2
Water % ASTM D6304 >0.2 ▲ 0.881 NEG NEG ppm Water ppm ASTM D6304 >2000 ▲ 8810 VISUAL method limit/base current history1 White Metal scalar *Visual NONE MODER MODER Yellow Metal scalar *Visual NONE NONE NONE NONE NONE NONE NONE NONE Silt scalar *Visual NONE NO	Potassium	ppm	ASTM D5185m	>20	4	0	<1
VISUAL method limit/base current history1 history White Metal scalar *Visual NONE NONE MODER MODER Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE VLITE NONE Debris scalar *Visual NONE 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 0.2% NEG NEG	Water		ASTM D6304	>0.2	<u> </u>	NEG	NEG
White Metal scalar *Visual NONE NONE MODER MODER Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE VLITE 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 0.2% NEG NEG	ppm Water	ppm	ASTM D6304	>2000	<u>▲</u> 8810		
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONEVLITENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.20.2%NEGNEG	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE VLITE 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 0.2% NEG NEG	White Metal	scalar	*Visual	NONE	NONE	MODER	MODER
Silt scalar *Visual NONE NONE VLITE 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 0.2% NEG NEG	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.20.2%NEGNEG	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.20.2%NEGNEG	Silt	scalar	*Visual	NONE	NONE	VLITE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.20.2%NEGNEG	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.20.2%NEGNEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >0.2 0.2% NEG NEG	Appearance		*Visual		NORML	NORML	NORML
Emulsified Water scalar *Visual >0.2 0.2% NEG NEG	• •		*Visual	NORML	NORML	NORML	NORML
1120	Free Water	scalar	*Visual		NEG	NEG	NEG



OIL ANALYSIS REPORT







Laboratory Sample No. **Unique Number**

Lab Number

: 06010378 : 10749522

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0859628 Received : 16 Nov 2023 Diagnosed : 20 Nov 2023

Diagnostician : Sean Felton

Test Package : CONST (Additional Tests: KF)

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)

SHERWOOD CONSTRUCTION CO INC

3219 WEST MAY ST WICHITA, KS US 67213

Contact: TRENTON HAJEK

Trenton.hajek@wildcat.net

T:

F: