

OIL ANALYSIS REPORT

Free Water

scalar *Visual

Area **Midwest PGM** FUCHS 340 fuchs mhl340 (S/N 340/ 2001)

Front Axle Fluid

GEAR OIL SAE 80W90 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

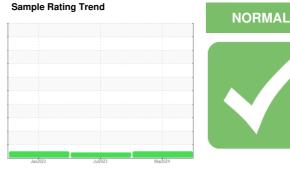
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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





ample Date Client Info 27 Mar 2024 11 Jul 2023 11 Jan 2023 Machine Age hrs Client Info 14765 14352 14066 Nil Age hrs Client Info 14765 14352 14066 Nol Changd Client Info Nor Changd Nor Changd Nor Changd Nor Changd GONTAMINATION method imit/base current history1 history2 Vater WC Method >0.2 NEG NEG NEG WEAR METALS method imit/base current history1 history2 or ppm ASTM D5185m >500 52 59 53 Shromium ppm ASTM D5185m 10 0 <1			Jan	2023	Jul2023 Mar20	24	
Ampie Date Client Info 27 Mar 2024 11 Jul 2023	SAMPLE INFORM	/IATION	method	limit/base	current	history1	history2
ample Date Client Info 27 Mar 2024 11 Jul 2023 11 Jan 2023 Machine Age hrs Client Info 14765 14352 14066 bil Age hrs Client Info 14765 14352 14066 bil Changed Client Info Not Changd Not Changd Not Changd Not Changd GONTAMINATION method imit/base current history1 history2 Vater WC Method >0.2 NEG NEG NEG WEAR METALS method imit/base current history1 history2 on ppm ASTM D5185m >500 52 59 53 Shromium ppm ASTM D5185m 10 0 <1	Sample Number		Client Info		PCA0115475	LW0007279	LW0006316
Name Ins Client Info 14765 14352 14066 Not Changed Client Info Not Changd Not Changd Not Changd ample Status Imit bits Current Not Changd Not Changd CONTAMINATION method imit/base current Nistory1 Nistory2 Vater WC Method >0.2 NEG NEG NEG WEAR METALS method imit/base current history1 history2 Yater WC Method >0.2 NEG NEG NEG WEAR METALS method imit/base current history1 history2 Yater ppm ASTM D5165m >10 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1436 1436 1436 1436 1436 1436 1436 1436 1436 1436 1436 1436	Sample Date		Client Info		27 Mar 2024	11 Jul 2023	11 Jan 2023
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ppm ASTM D5185m >10 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	WEAR METALS	S	method	limit/base	current	history1	history2
tickel ppm ASTM D5185m >10 0 < <1 0 itanium ppm ASTM D5185m 0 0 0 oluminum ppm ASTM D5185m 225 <1 3 ead ppm ASTM D5185m >25 <1 3 oppper ppm ASTM D5185m >25 2 3 0 oppper ppm ASTM D5185m >25 2 3 0 oppper ppm ASTM D5185m >10 0 0 <1 Itanadium ppm ASTM D5185m 0 0 <1 Itanadium ppm ASTM D5185m 0 0 <10 <10 ASTM D5185m 200 0 <10 ASTM D5185m 200 0 <10 ASTM D5185m 12 0 0 0 0 ASTM D5185m 12 0 0 0 0 ASTM D5185m 12 0 0 0 0 ASTM D5185m 12 0 0 0 0 Astrium ppm ASTM D5185m 12 0 0 0 0 Astrium ppm ASTM D5185m 12 0 0 0 0 Astrium ppm ASTM D5185m 12 0 4 <1 Astrium ppm ASTM D5185m 12 0 4 <1 Astriucum ppm ASTM D5185m 12 0 2 Astriucum ppm ASTM D5185m 12 0 1 19 14 bulfur ppm ASTM D5185m 125 0 19 19 14 bulfur ppm ASTM D5185m >75 19 26 20 isodium ppm ASTM D5185m >170 1 3 22 Astriucum ppm ASTM D5185m >20 0 2 VISUAL method limit/base current history1 history2 Vhite Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NON	Iron	ppm	ASTM D5185m	>500	52	59	53
Itanium ppm ASTM D5185m 0 <1 0 silver ppm ASTM D5185m 25 <1	Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Normality Ppm ASTM D5185m >25 <1 3 <1 ead ppm ASTM D5185m >25 2 3 0 iopper ppm ASTM D5185m >25 2 3 0 in ppm ASTM D5185m >50 18 21 18 in ppm ASTM D5185m >10 0 0 <1	Nickel	ppm	ASTM D5185m	>10	0	<1	0
Auminum ppm ASTM D5185m >25 <1 3 <1 ead ppm ASTM D5185m >25 2 3 0 copper ppm ASTM D5185m >50 18 21 18 in ppm ASTM D5185m >10 0 0 <1	Titanium	ppm	ASTM D5185m		0	<1	0
ead ppm ASTM D5185m >25 2 3 0 Sopper ppm ASTM D5185m >50 18 21 18 in ppm ASTM D5185m >10 0 0 <1	Silver	ppm	ASTM D5185m		0	0	0
Dopper ppm ASTM D5185m >50 18 21 18 rin ppm ASTM D5185m >10 0 0 <1	Aluminum	ppm	ASTM D5185m	>25	<1	3	<1
in ppm ASTM D5185m >10 0 0 <11 Aranadium ppm ASTM D5185m 0 0 0 <11 Astmum ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 boron ppm ASTM D5185m 200 0 <1 3 tarium ppm ASTM D5185m 12 0 0 0 Alaganese ppm ASTM D5185m 12 0 0 0 Alaganese ppm ASTM D5185m 12 0 4 Aragnesium ppm ASTM D5185m 12 0 14 Aragnesium ppm ASTM D5185m 12 0 4 Aragnesium ppm ASTM D5185m 150 <1 177 12 Phosphorus ppm ASTM D5185m 125 0 19 14 Salcium ppm ASTM D5185m 22500 29032 32395 28457 CONTAMINANTS method limit/base current history1 history2 Billcon ppm ASTM D5185m >75 19 26 20 Sodium ppm ASTM D5185m >75 19 26 20 VISUAL method limit/base current history1 history2 Vhite Metal scalar *Visual NONE NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE NONE Frecipitate scalar *Visual NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	Lead	ppm	ASTM D5185m	>25	2	3	0
AranadiumppmASTM D5185m0<10CadmiumppmASTM D5185m000ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m4000<1	Copper	ppm	ASTM D5185m	>50	18	21	18
RadmiumppmASTM D5185m000ADDITIVESmethodlimit/basecurrenthistory1history2koronppmASTM D5185m4000<1	Tin	ppm	ASTM D5185m	>10	0	0	<1
ADDITIVESmethodlimit/basecurrenthistory1history2koronppmASTM D5185m4000<1	Vanadium	ppm	ASTM D5185m		0	<1	0
koronppmASTM D5185m4000<13kariumppmASTM D5185m20006<1	Cadmium	ppm	ASTM D5185m		0	0	0
ariumppmASTM D5185m20006<1	ADDITIVES		method	limit/base	current	history1	history2
AolybdenumppmASTM D5185m12000ManganeseppmASTM D5185m12043MagnesiumppmASTM D5185m1204<1	Boron	ppm	ASTM D5185m	400	0	<1	3
AnganeseppmASTM D5185m443ManganeseppmASTM D5185m1204<1	Barium	ppm	ASTM D5185m	200	0	6	<1
MagnesiumppmASTM D5185m1204<1CalciumppmASTM D5185m150<1	Molybdenum	ppm	ASTM D5185m	12	0	0	0
ControlppmASTM D5185m150<11712ControlppmASTM D5185m1650308341322ControlppmASTM D5185m12501914SulfurppmASTM D5185m12501914SulfurppmASTM D5185m22500290323239528457CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>75192620SodiumppmASTM D5185m>170132PotassiumppmASTM D5185m>2002<1	Manganese	ppm	ASTM D5185m		4	4	3
PhosphorusppmASTM D5185m1650308341322SincppmASTM D5185m12501914SulfurppmASTM D5185m22500290323239528457CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>75192620SodiumppmASTM D5185m>75192620SodiumppmASTM D5185m>70132VotassiumppmASTM D5185m>2002<1VISUALmethodlimit/basecurrenthistory1history2Vhite Metalscalar*VisualNONENONENONENONEVerecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONESeddyscalar*VisualNONENONENONENONENONESeddyscalar*VisualNONENONENONENONENONESeddyscalar*VisualNONENONENONENONENONEOpearancescalar*VisualNORMLNORMLNORMLNORMLNORML	Magnesium	ppm	ASTM D5185m	12	0	4	<1
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BulfurppmASTM D5185m22500290323239528457CONTAMINANTSmethodlimit/basecurrenthistory1history2BiliconppmASTM D5185m>75192620BididumppmASTM D5185m>170132BodiumppmASTM D5185m>2002<1	Phosphorus	ppm	ASTM D5185m	1650	308	341	322
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m<>75192620SodiumppmASTM D5185m>170132PotassiumppmASTM D5185m>2002<1	Zinc	ppm	ASTM D5185m	125	0	19	14
biliconppmASTM D5185m<>75192620codiumppmASTM D5185m>170132cotassiumppmASTM D5185m>2002<1	Sulfur	ppm	ASTM D5185m	22500	29032	32395	28457
SodiumppmASTM D5185m>170132PotassiumppmASTM D5185m>2002<1	CONTAMINAN	TS	method	limit/base	current	history1	history2
PotassiumppmASTM D5185m>2002<1VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEVellow Metalscalar*VisualNONENONENONENONEVerecipitatescalar*VisualNONENONENONENONEVisualScalar*VisualNONENONENONENONEVisualNONENONENONENONENONENONEVebrisscalar*VisualNONENONEMODERNONESand/Dirtscalar*VisualNONENONENONENONEAdorscalar*VisualNORMLNORMLNORMLNORMLNordscalar*VisualNORMLNORMLNORMLNORML	Silicon	ppm	ASTM D5185m	>75	19	26	20
VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Vellow Metal scalar *Visual NONE NONE NONE NONE NONE Verecipitate scalar *Visual NONE NONE NONE NONE NONE Stilt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE MODER NONE Stand/Dirt scalar *Visual NONE NONE NONE NONE Speparance scalar *Visual NORML NORML NORML NORML	Sodium	ppm	ASTM D5185m	>170	1	3	2
White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Stilt scalar *Visual NONE NONE NONE NONE Obbris scalar *Visual NONE NONE MODER NONE Stand/Dirt scalar *Visual NONE NONE NONE NONE Speparance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	Potassium	ppm	ASTM D5185m	>20	0	2	<1
Yellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONEsiltscalar*VisualNONENONENONENONENONEbebrisscalar*VisualNONENONEMODERNONEand/Dirtscalar*VisualNONENONENONENONEoppearancescalar*VisualNORMLNORMLNORMLNORMLodorscalar*VisualNORMLNORMLNORMLNORML	VISUAL		method	limit/base	current	history1	history2
Precipitatescalar*VisualNONENONENONENONENONEsiltscalar*VisualNONENONENONENONENONEbebrisscalar*VisualNONENONEMODERNONEcand/Dirtscalar*VisualNONENONENONENONEoppearancescalar*VisualNORMLNORMLNORMLNORMLodorscalar*VisualNORMLNORMLNORMLNORML	White Metal	scalar	*Visual	NONE			
siltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONEMODERNONEand/Dirtscalar*VisualNONENONENONENONEappearancescalar*VisualNORMLNORMLNORMLNORMLadorscalar*VisualNORMLNORMLNORMLNORML	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debrisscalar*VisualNONENONEMODERNONEand/Dirtscalar*VisualNONENONENONENONEappearancescalar*VisualNORMLNORMLNORMLNORMLodorscalar*VisualNORMLNORMLNORMLNORML	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
and/Dirtscalar*VisualNONENONENONENONEuppearancescalar*VisualNORMLNORMLNORMLNORMLodorscalar*VisualNORMLNORMLNORMLNORML	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
ppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	Debris	scalar	*Visual	NONE	NONE	▲ MODER	NONE
Door scalar *Visual NORML NORML NORML NORML	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
mulsified Water scalar *Visual >0.2 NEG NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

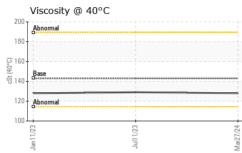
NEG

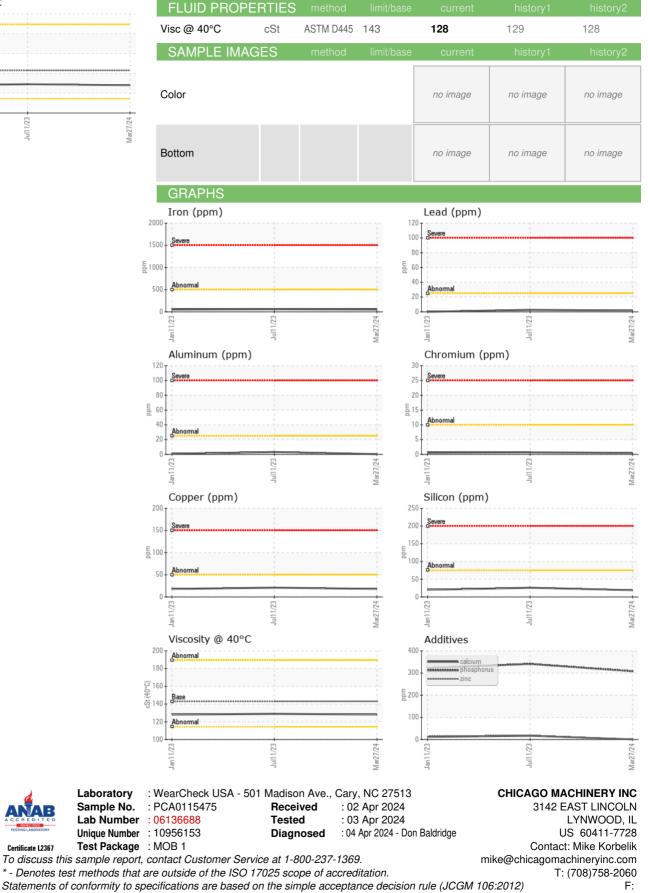
NEG

NEG



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Certificate L2367