

## WEAR ABNORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL



Machine Id DT629 Component Transmission (Auto)

COGNIS EMGARD 2805 ATF (42 mls)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

W	E,	4	R

The copper level is abnormal. All other component wear rates are normal.

## CONTAMINATION

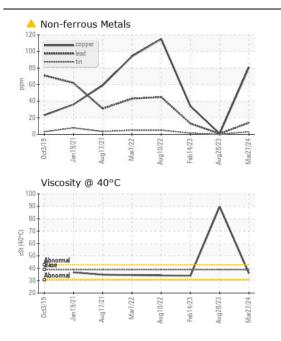
There is no indication of any contamination in the fluid.

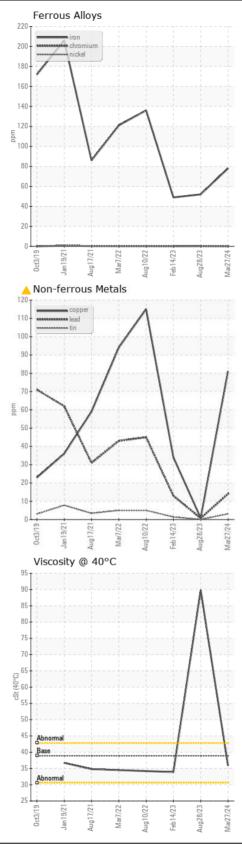
<b>FLUID</b>	CO	NDIT	ION

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

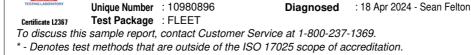
Sample DateClient InfoZ MarcuraZ MarcuraZ Aug 2023I 4 Feb 202Machine AgemlsClient Info289501268894239043239043Oil AgemlsClient Info23397121336425679213364Filter AgemlsClient Info0000Oil ChangedClient InfoChangedNot ChangeNot ChangeNot ChangeFilter ChangedClient InfoChangedNot ChangeNot ChangeNot ChangeSample StatusClient InfoChangedNot ChangeNot ChangeNot ChangeIronppmASTM D5185m>220785249ChromiumppmASTM D5185m>2<							
Sample DateClient InfoZ Mar 20224 Aug 20214 Feb 202Machine AgemlsClient Info289501268944239043Oil AgemlsClient Info23397121336425679Filter AgemlsClient InfoCAgag 20121364425679Oil ChangedmlsClient InfoCAnageNot ChangeNot ChangeFilter ChangedCClient InfoCChangedNot ChangeNot ChangeFilter ChangedCClient InfoMar 200Not ChangeNot ChangeSample StatusClient InfoMar 200ChangedNot ChangeNot ChangeIronppmASTM D5185>20785249NickelppmASTM D5185>5000SilverppmASTM D5185>5000AluminumppmASTM D5185>50Aft133CopperppmASTM D5185>50Aft1314VanadiumppmASTM D5185>50Aft1413CopperppmASTM D5185>60Aft1413VanadiumppmASTM D5185>60Aft1414VanadiumppmASTM D5185>60Aft1414VanadiumppmASTM D5185>60Aft1414VanadiumppmASTM D5185>20Aft1414Vanadiu	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine AgemisClient Info289901268944239043Oil AgemisClient Info23397121336425679Filter AgemisClient InfoChangedNot ChangeNot ChangeGlich LangedClient InfoChangedNot ChangeNot ChangeFilter ChangedClient InfoChangedNot ChangeNot ChangeFilter ChangedClient InfoChangedNot ChangeNot ChangeSample StatusClient InfoPASTMD5185>2078ChromiumppmASTMD5185>2074<1NickelppmASTMD5185>500ChromiumppmASTMD5185>500SilverppmASTMD5185>500AluminumppmASTMD5185>500AluminumppmASTMD5185>500AluminumppmASTMD5185>500AluminumppmASTMD5185>500VanadiumppmASTMD5185>614<13CopperppmASTMD5185>600VanadiumppmASTMD5185>600VanadiumppmASTMD5185>2000VanadiumppmASTMD5185>2000VanadiumppmASTMD5185>2000VanadiumppmASTMD5185>2000	Sample Number		Client Info		PCA0113242	PCA0103253	PCA0091234
Oil AgemisClient InfoJ23397121334425679Filter AgemisClient InfoNNN <t< th=""><th>Sample Date</th><th></th><th>Client Info</th><th></th><th>27 Mar 2024</th><th>28 Aug 2023</th><th>14 Feb 2023</th></t<>	Sample Date		Client Info		27 Mar 2024	28 Aug 2023	14 Feb 2023
Filter AgemlsClient InfoOOOOil ChangedCient InfoChangedNot ChangedNot ChangedNot ChangedNot ChangedFilter ChangedQClient InfoChangedNot ChangedNot ChangedNot ChangedSample StatusSASTM D5185n>22078S2249ChromiumppmASTM D5185n>20<	Machine Age	mls	Client Info		289501	268894	239043
Oli ChangedClient InfoChangedNot ChangedNot Changed <th>Oil Age</th> <th>mls</th> <th>Client Info</th> <th></th> <th>233971</th> <th>213364</th> <th>25679</th>	Oil Age	mls	Client Info		233971	213364	25679
Filter Changed Sample StatusClient InfoChanged ABNORMALNot Changed ABNORMALNot Changed ATTENTIONNot Changed NORMALIronppmASTM DS185m PPM>2207852249ChromiumppmASTM DS185m PPM>20<	Filter Age	mls	Client Info		0	0	0
Sample StatusABNORMALATTENTIONNORMALIronppmASTM D5185m>220785249ChromiumppmASTM D5185m>2<1<1<1NickelppmASTM D5185m>5000TitaniumppmASTM D5185m>5000SilverppmASTM D5185m>5000AluminumppmASTM D5185m>55000AluminumppmASTM D5185m>5514<1113CopperppmASTM D5185m>50311VanadiumppmASTM D5185m>10301VanadiumppmASTM D5185m>10301VanadiumppmASTM D5185m>10301VanadiumppmASTM D5185m>257665Yellow Metalscalar*VisualNONENONENONEYellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>2002<1SiliconppmASTM D5185m>2002<1SiliconppmASTM D5185m>2002<1SiliconppmASTM D5185m>2002<1SiliconppmASTM D5185m>20NORENONENONESodurppmASTM D5185m<	Oil Changed		Client Info		Changed	Not Changd	Not Change
IronppmASTM D5185m>220785249ChromiumppmASTM D5185m>2<1<1<1<1NickelppmASTM D5185m>5000TitaniumppmASTM D5185m>5000SilverppmASTM D5185m>5000AluminumppmASTM D5185m>55353315LeadppmASTM D5185m>5514<1134CopperppmASTM D5185m>60A 81<134TinppmASTM D5185m>10301VanadiumppmASTM D5185m>10301VanadiumppmASTM D5185m>10301Vellow Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>2002<1WaterVisualNONENONENONENONENONESiliconscalar*VisualNONENONENONENONESiliconppmASTM D5185m>2002<1Gata*VisualNONENONENONENONENONESiliconscalar*VisualNONENONENONENONESodiu/Ditscalar*VisualNORENORE <td< th=""><th>Filter Changed</th><th></th><th>Client Info</th><th></th><th>Changed</th><th>Not Changd</th><th>Not Change</th></td<>	Filter Changed		Client Info		Changed	Not Changd	Not Change
ChromiumppmASTM D5185m>2<1	Sample Status				ABNORMAL	ATTENTION	NORMAL
NickelppmASTM D5185m>5000TitaniumppmASTM D5185m>5000SilverppmASTM D5185m>5000AluminumppmASTM D5185m>5514<1.013.0LeadppmASTM D5185m>5014<1.034.0CopperppmASTM D5185m>1030.01VanadiumppmASTM D5185m>1030.01VanadiumppmASTM D5185m>103.00.00White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>2002<1WaterwordNONENONENONENONENONESilitscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONEAppearancescalar*VisualNORHNORHNORHNORHAstM D5185m>0.1NEG0.0.0.0MaterwordNORENORENORENORH.0AstM D5185m>0.1NORENORHNORH.0.0AstM D5185m>0.1NORENORE.0.0.0AstM D5185m>0.1NORE.0.0.0<	Iron	ppm	ASTM D5185m	>220	78	52	49
TitaniumppmASTM D5185mO00SilverppmASTM D5185m>50000AluminumppmASTM D5185m>7535315LeadppmASTM D5185m>9514<1334CopperppmASTM D5185m>60▲ 81<1434TinppmASTM D5185m>10301VanadiumppmASTM D5185m>10301VanadiumppmASTM D5185m>10NONENONENONEYellow Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>2002<1WaterWC Method>0.1NEGNCGNONESilitscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONEAppearancescalar*VisualNORENORENORENORMAddriftscalar*VisualNORENORENORENOREAppearancescalar*VisualNORENORENORENORMAddriftscalar*VisualNORENORENORENORMAddriftscalar*VisualNORENORENORENOREAppearancescalar*VisualNORE <th>Chromium</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;2</th> <th>&lt;1</th> <th>&lt;1</th> <th>&lt;1</th>	Chromium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver ppm ASTM D5185m >5 0 0 0   Aluminum ppm ASTM D5185m >75 35 3 15   Lead ppm ASTM D5185m >95 14 <1 34   Copper ppm ASTM D5185m >00 $\checkmark$ 81 <1 34   Tin ppm ASTM D5185m >10 3 00 1   Vanadium ppm ASTM D5185m >10 3 0.0 1   Vanadium ppm ASTM D5185m >10 3 0.0 1   Vanadium ppm ASTM D5185m >20 NONE NONE NONE   Yellow Metal scalar *Visual NONE NONE NONE NONE NONE   Silicon ppm ASTM D5185m >20 0 2 <1 NORE   Vater wC Method >0.1 NCME NONE NONE NORE   Appearance scalar	Nickel	ppm	ASTM D5185m	>5	0	0	0
Aluminum ppm ASTM D5185m >75 35 3 15   Lead ppm ASTM D5185m >95 14 <1 34   Copper ppm ASTM D5185m >60 A 81 <1 34   Tin ppm ASTM D5185m >10 3 0 1   Vanadium ppm ASTM D5185m >10 3 0.0 1   Vanadium ppm ASTM D5185m >10 0 0 0 0   White Metal scalar 'Visual NONE NONE NONE NONE NONE   Yellow Metal scalar 'Visual NONE NONE NONE NONE NONE   Silicon ppm ASTM D5185m >20 0 2 <1 0   Vater WC Method >0.1 NEG NORE NORE NORE   Debris scalar 'Visual NORE NORM NORM NORM NORM	Titanium	ppm	ASTM D5185m		0	0	0
Lead ppm ASTM D5185m >95 14 <1	Silver		ASTM D5185m	>5	0	0	0
CopperppmASTM D5185m>60A 81<1	Aluminum	ppm	ASTM D5185m	>75	35	3	15
TinppmASTM D5185m>10301VanadiumppmASTM D5185mP0000White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONESiliconppmASTM D5185m>257657PotassiumppmASTM D5185m>2002<11WaterWC Method>0.1NEGNONENONENONENONESilitscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMNORMLNORMLNORMLNORMLOdorscalar*VisualNORMNORMLNORMLNORMLNORMLBariumppmASTM D5185mC1205122BariumppmASTM D5185mC101110MaganeseppmASTM D5185mC3321057326PhosphorusppmASTM D5185mC3321057326SoluturppmASTM D5185mC70128466SulfurppmASTM D5185mC70128466	Lead	ppm	ASTM D5185m	>95	14	<1	13
VanadiumppmASTM D5185mOOOWhite Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONENONESiliconppmASTM D5185m>20 <b>7</b> 655PotassiumppmASTM D5185m>20 <b>0</b> 2<11WaterWC Method>0.1 <b>NEG</b> NEGNONENONENONEDebrisscalar*VisualNONE <b>NONE</b> NONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMNORMLNORMLNORMLNORMLOdorscalar*VisualNORMNORMLNORMLNORMLNORMLBariumppmASTM D5185mI604BariumppmASTM D5185mI111MaganeseppmASTM D5185mI111MagnesiumppmASTM D5185mI33221057326PhosphorusppmASTM D5185mT128466326SulfurppmASTM D5185m70128466326	Copper	ppm	ASTM D5185m	>60	<b>A</b> 81	<1	34
White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONENONESiliconppmASTM D5185m>257657PotassiumppmASTM D5185m>2002<11WaterWC Method>0.1NEGNEGNEGNEGSilitscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNORNORMNONENONENONEAppearancescalar*VisualNORMNORMNORMNORMNORMOdorscalar*VisualNORMNORMNORMNORMNORMBariumppmASTM D5185mI6040MolybdenumppmASTM D5185mI111111MaganeseppmASTM D5185mI1011110CalciumppmASTM D5185mI33221057326PhosphorusppmASTM D5185mT3322108222285StifurppmASTM D5185mI2497108222285	Tin	ppm	ASTM D5185m	>10	3	0	1
Yellow Metalscalar*VisualNONENONENONENONENONENONESiliconppmASTM D5185m>257657PotassiumppmASTM D5185m>2002<1WaterWC Method>0.1NEGNEGNEGSilitscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORMNONENONENONEAppearancescalar*VisualNORMNORMLNORMLNORMOdorscalar*VisualNORMNORMLNORMLNORMEmulsified Waterscalar*VisualNORNEGNEGNEGSodiumppmASTM D5185m604NEGBariumppmASTM D5185mIn111110ManganeseppmASTM D5185mIn111011MagnesiumppmASTM D5185mIn3321057326PhosphorusppmASTM D5185mIn3321057326ZincppmASTM D5185mIn2497108222285	Vanadium	ppm	ASTM D5185m		0	0	0
SiliconppmASTM D5185m>25765PotassiumppmASTM D5185m>2002<1	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
PotassiumppmASTM D5185m>2002<1	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
WaterWC Method>0.1NEGNEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONEVLITESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMNORMLNORMLNORMLNORMLOdorscalar*VisualNORMNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185mSG04BoronppmASTM D5185mInIn1111MagnesiumppmASTM D5185mInIn1110CalciumppmASTM D5185mInIn1110PhosphorusppmASTM D5185mInIn1110CalciumppmASTM D5185mInIn10159PhosphorusppmASTM D5185mInIn128466SulfurppmASTM D5185mInIn228510821228	Silicon	ppm	ASTM D5185m	>25	7	6	5
Siltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONEVLITESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMNORMLNORMLNORMLNORMLOdorscalar*VisualNORMNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGNEGSodiumppmASTM D5185m604122BariumppmASTM D5185m1111ManganeseppmASTM D5185m11111MagnesiumppmASTM D5185mI3321057326PhosphorusppmASTM D5185m3321057326ZincppmASTM D5185m70128466SulfurppmASTM D5185m702285	Potassium	ppm	ASTM D5185m	>20	0	2	<1
Debrisscalar*VisualNONENONENONENONEVLITESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGNEGSodiumppmASTM D5185m604122BariumppmASTM D5185mIncInc111111MalganeseppmASTM D5185mInc11111111MagnesiumppmASTM D5185mIncInt1101101111PhosphorusppmASTM D5185mIntIntInt1591591591561521561	Water		WC Method	>0.1	NEG	NEG	NEG
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGNEGSodiumppmASTM D5185m604ABoronppmASTM D5185m1220122ABariumppmASTM D5185m040124MolybdenumppmASTM D5185m1111MagnesiumppmASTM D5185m110111010CalciumppmASTM D5185m14730811591PhosphorusppmASTM D5185m13321057326ZincppmASTM D5185m70128466SulfurppmASTM D5185m2497108222285	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORML<	Debris	scalar	*Visual	NONE	NONE	NONE	VLITE
Odorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGNEGSodiumppmASTM D5185m604BoronppmASTM D5185m1205122BariumppmASTM D5185m040MolybdenumppmASTM D5185mC41ManganeseppmASTM D5185m111MagnesiumppmASTM D5185m1473081159PhosphorusppmASTM D5185m1473081159PhosphorusppmASTM D5185m170128466SulfurppmASTM D5185m70108222285	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m604BoronppmASTM D5185m1205122BariumppmASTM D5185m040MolybdenumppmASTM D5185m040ManganeseppmASTM D5185m111MagnesiumppmASTM D5185m101110CalciumppmASTM D5185m14773081159PhosphorusppmASTM D5185m33210577326ZincppmASTM D5185m70128466SulfurppmASTM D5185m2497108222285	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Sodium ppm ASTM D5185m 6 0 4   Boron ppm ASTM D5185m 120 5 122   Barium ppm ASTM D5185m 0 4 0   Molybdenum ppm ASTM D5185m 0 4 0   Manganese ppm ASTM D5185m 1 1 1   Magnesium ppm ASTM D5185m 100 111 10   Calcium ppm ASTM D5185m 1477 3081 159   Phosphorus ppm ASTM D5185m 332 1057 326   Zinc ppm ASTM D5185m 70 1284 66   Sulfur ppm ASTM D5185m 2497 10822 2285	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Boron ppm ASTM D5185m 120 5 122   Barium ppm ASTM D5185m 0 4 0   Molybdenum ppm ASTM D5185m 0 41 1   Manganese ppm ASTM D5185m 1 1 <1   Magnesium ppm ASTM D5185m 10 11 10   Calcium ppm ASTM D5185m 147 3081 159   Phosphorus ppm ASTM D5185m 332 1057 326   Zinc ppm ASTM D5185m 70 1284 66   Sulfur ppm ASTM D5185m 2497 10822 2285	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Barium ppm ASTM D5185m 0 4 0   Molybdenum ppm ASTM D5185m   <1	Sodium	ppm	ASTM D5185m		6	0	4
Molybdenum ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		120	<b>5</b>	122
Manganese ppm ASTM D5185m 1 1 <1	Barium	ppm	ASTM D5185m		0	4	0
Magnesium ppm ASTM D5185m 10 11 10   Calcium ppm ASTM D5185m 147 3081 159   Phosphorus ppm ASTM D5185m 332 1057 326   Zinc ppm ASTM D5185m 70 1284 66   Sulfur ppm ASTM D5185m 2497 10822 2285	Molybdenum	ppm	ASTM D5185m		<1	<1	1
Calcium ppm ASTM D5185m 147 3081 159   Phosphorus ppm ASTM D5185m 332 1057 326   Zinc ppm ASTM D5185m 70 1284 66   Sulfur ppm ASTM D5185m 2497 10822 2285	Manganese	ppm	ASTM D5185m		1	1	<1
Phosphorus ppm ASTM D5185m 332 1057 326   Zinc ppm ASTM D5185m 70 1284 66   Sulfur ppm ASTM D5185m 2497 10822 2285	Magnesium	ppm	ASTM D5185m		10	11	10
Zinc ppm ASTM D5185m 70 1284 66   Sulfur ppm ASTM D5185m 2497 10822 2285	Calcium	ppm	ASTM D5185m		147	3081	159
Sulfur ppm ASTM D5185m 2497 10822 2285	Phosphorus	ppm	ASTM D5185m		332	01057	326
	Zinc	ppm	ASTM D5185m		70	1284	66
Visc @ 40°C cSt ASTM D445 38.9 35.9 89.8 33.9	Sulfur	ppm	ASTM D5185m		2497	010822	2285
	Visc @ 40°C	cSt	ASTM D445	38.9	35.9	89.8	33.9

Submitted By: Under NWWDUN - James Threatt





NW WHITE & CO - ANDERSON DIVISION 2605 RIVER RD PIEDMONT, SC elton US 29673 Contact: James Threatt jthreatt@nwwhite.com T: (864)918-4646 (JCGM 106:2012) F:



: PCA0113242

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

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

Received

Tested

: 16 Apr 2024

: 17 Apr 2024

Laboratory

Sample No.

Lab Number : 06150818

Submitted By: Under NWWDUN - James Threatt Page 2 of 2