

### **OIL ANALYSIS REPORT**

#### Sample Rating Trend



# ACECO RWSB-W 10061374 - BRIDGE SOUTH (S/N 3218)

**Gearbox** 

SHELL OMALA S2 GX 220 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

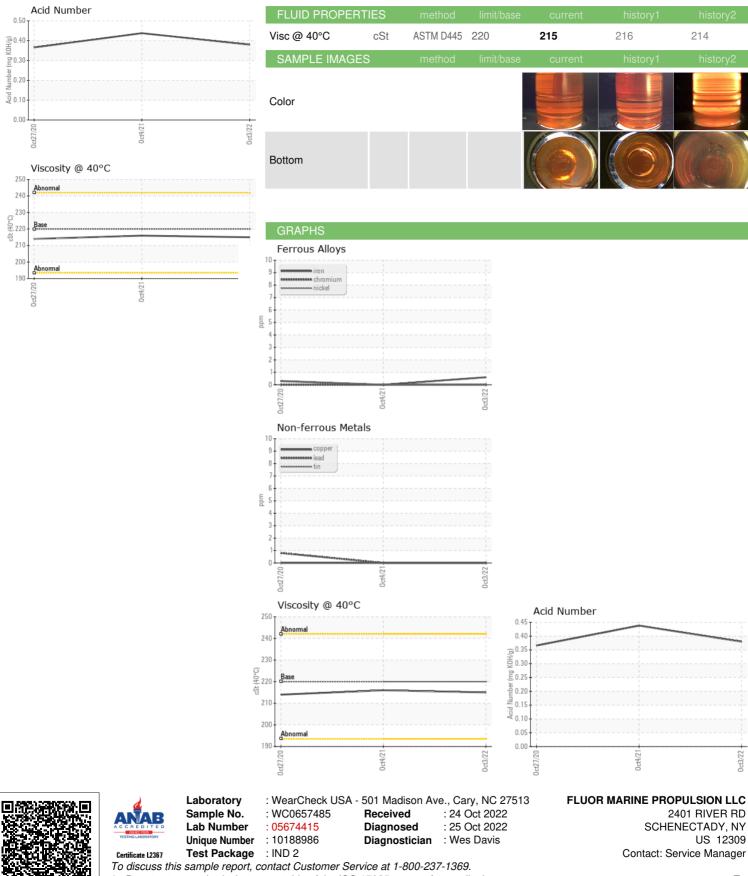
#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION         method         Imit/base         current         Istory1         Istory2           Sample Number         Client Info         03 Oct 2022         04 Oct 2021         27 Oct 2020           Machine Age         mths         Client Info         0         0         0           Oll Age         mths         Client Info         0         0         0         0           Oll Age         mths         Client Info         Not Changd         Not Changd <th></th> <th></th> <th></th> <th></th> <th>0::2021 0::20</th> <th></th> <th></th>					0::2021 0::20			
Sample NumberClient InfoWC0457485WC0424944WC0495717Sample DateClient Info0000Machine AgemthsClient Info0000Oll AgemthsClient Info00000Oll AgemthsClient Info000000Sample StatusImit AgeImit AgeNot ChangdNot ChangdNot ChangdNot ChangdSample StatusImit AgeImit AgeImit AgeNot ChangdNot ChangdNot ChangdChromiumppmASTM D5185m>150000NickelppmASTM D5185m50000SilverppmASTM D5185m>2000000AuminumppmASTM D5185m200000000000000000000000000000000000000000000000000000000000000000000000000000000000000 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
Sample Date         Client Info         03 Oct 2022         04 Oct 2021         27 Oct 2020           Machine Age         mths         Client Info         0         0         0           Oil Age         mths         Client Info         36         24         12           Oil Changed         Client Info         Not Changd         Not Changd         Not Changd         Not Changd           Sample Status         mths         Client Info         Not Changd         Not Changd         Not Changd           Chromium         ppm         ASTM 05185n         >200         <1         0         <1           Chromium         ppm         ASTM 05185n         >15         0         0         <1         0           Nickel         ppm         ASTM 05185n         >10         0         0         <1         0           Aluminum         ppm         ASTM 05185n         >200         0         0         <1         0           Cadmium         ppm         ASTM 05185n         >200         0         0         <1         0           Cadmium         ppm         ASTM 05185n         0         2         0         0         <1         1         <1         0	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Machine AgemthsClient Info00000Oil ChangedClient InfoNot ChangdNot ChangdNot ChangdNot ChangdNot ChangdSample StatusIInitotascurrentNistory!Nistory!Nistory!IronppmASTM DSISsn>200<1			Client Info		WC0657485	WC0424944	WC0495717	
Oil Age     mths     Client Info     36     24     12       Oil Changed     Client Info     Not Changd     Not Changd     Not Changd     Not Changd       Sample Status     method     Initibase     current     history1     Not Changd       Iron     ppm     ASTM 05185m     >200     <1	Sample Date		Client Info		03 Oct 2022	04 Oct 2021	27 Oct 2020	
Note         Note <th< td=""><td>Machine Age</td><td>mths</td><td>Client Info</td><td></td><th>0</th><td>0</td><td>0</td></th<>	Machine Age	mths	Client Info		0	0	0	
Sample Status         method         Imit/base         current         history1         history2           Iron         ppm         ASTM D5/85m         >200         <1	Oil Age	mths	Client Info		36	24	12	
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM 05165m         >200         <1	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd	
Iron         ppm         ASTM D5185n         >200         <1         0         <1           Chromium         ppm         ASTM D5185n         >15         0         0         0           Nickel         ppm         ASTM D5185n         >15         0         0         0           Silver         ppm         ASTM D5185n         >25         0         0         <1	Sample Status				NORMAL	NORMAL	NORMAL	
Chromium         ppm         ASTM D5185m         >15         0         0         0           Nickel         ppm         ASTM D5185m         >15         0         0         0         0           Silver         ppm         ASTM D5185m         0         0         0         0         0           Aluminum         ppm         ASTM D5185m         >25         0         0         <1         0           Lead         ppm         ASTM D5185m         >200         0         0         0         0           Antimony         ppm         ASTM D5185m         >200         0         0         0         0           Antimony         ppm         ASTM D5185m          0         0         0         0           Antimony         ppm         ASTM D5185m         0         0         0         0         0         0         0           Vanadium         ppm         ASTM D5185m         0.0         2         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <td< th=""><th>WEAR METALS</th><th></th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></td<>	WEAR METALS		method	limit/base	current	history1	history2	
Nickel         ppm         ASTM D5185m         >15         0         0         <1           Titanium         ppm         ASTM D5185m         0         0         0         0           Silver         ppm         ASTM D5185m         >225         0         0         <1	Iron	ppm	ASTM D5185m	>200	<1	0	<1	
Titanium         ppm         ASTM D5185m         0         -1         0           Silver         ppm         ASTM D5185m         >25         0         0         <1	Chromium	ppm	ASTM D5185m	>15	0	0	0	
Silver         ppm         ASTM D5185m         0         <1         0           Aluminum         ppm         ASTM D5185m         >25         0         0         <1	Nickel	ppm	ASTM D5185m	>15	0	0	<1	
Aluminum         ppm         ASTM D5185m         >25         0         0         <1           Lead         ppm         ASTM D5185m         >100         0         0         0         0           Copper         ppm         ASTM D5185m         >200         0         0         0         0           Antimony         ppm         ASTM D5185m         >200         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         <1	Titanium	ppm	ASTM D5185m		0	0	0	
Lead         ppm         ASTM D5185m         >100         0         <11           Copper         ppm         ASTM D5185m         >200         0         0         0           Tin         ppm         ASTM D5185m         >25         0         0         0           Antimony         ppm         ASTM D5185m          0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         2         0         0           Boron         ppm         ASTM D5185m         0.0         2         0         0           Magnesium         ppm         ASTM D5185m         0.0         4         1         1         0           Calcium         ppm         ASTM D5185m         0.0         6         4         2         2           Phosphorus         ppm         ASTM D5185m         0.0         6         1         4         4           Sulfur         ppm         ASTM D5185m         5.0         <1<	Silver	ppm	ASTM D5185m		0	<1	0	
Lead         ppm         ASTM D5185m         >100         0         0         <11           Copper         ppm         ASTM D5185m         >200         0         0         0           Tin         ppm         ASTM D5185m         >25         0         0         0           Antimony         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0.0         2         0         0           Maganese         ppm         ASTM D5185m         0.0         2         0         0           Magnesium         ppm         ASTM D5185m         0.0         1         <1	Aluminum	ppm	ASTM D5185m	>25	0	0	<1	
Copper         ppm         ASTM D5185m         >200         0         0         0           Tin         ppm         ASTM D5185m         >25         0         0         0           Antimony         ppm         ASTM D5185m          0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         <1	Lead		ASTM D5185m	>100	0	0	<1	
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AntimonyppmASTM D5185m00VanadiumppmASTM D5185m000<1	<1	Tin		ASTM D5185m	>25	0	0	0
VanadiumppmASTM D5185m0000CadmiumppmASTM D5185m00<1	<1	Antimony		ASTM D5185m			0	0
CadmiumppmASTM D5185m000<1ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m6.2091BariumppmASTM D5185m0.0200MolybdenumppmASTM D5185m0<1	Vanadium		ASTM D5185m		0	0	0	
ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m6.2091BariumppmASTM D5185m0.0200MolybdenumppmASTM D5185m0<1	Cadmium		ASTM D5185m		0	0	<1	
BoronppmASTM D5185m6.2091BariumppmASTM D5185m0.0200MolybdenumppmASTM D5185m0<1		1. Is	mothod	limit/baco	ourropt	history1	history?	
BariumppmASTM D5185m0.0200MolybdenumppmASTM D5185m0<1								
MolybdenumppmASTM D5185m0<1<1<1ManganeseppmASTM D5185m01<1				•				
ManganeseppmASTM D5185m<100MagnesiumppmASTM D5185m01<1							-	
Magnesium agnesiumppmASTM D5185m01<10CalciumppmASTM D5185m0.0642PhosphorusppmASTM D5185m290277257252ZincppmASTM D5185m3.81144SulfurppmASTM D5185m81671305894518876CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50<1				0				
CalciumppmASTM D5185m0.0642PhosphorusppmASTM D5185m290277257252ZincppmASTM D5185m3.81144SulfurppmASTM D5185m81671305894518876CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50<1	-							
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SulfurppmASTM D5185m81671305894518876CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50<1	•							
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50<1	-							
SiliconppmASTM D5185m>50<1<12SodiumppmASTM D5185m0<1			ASTM D5185m	8167	13058	9451	8876	
SodiumppmASTM D5185m0<1<1PotassiumppmASTM D5185m>20<1	CONTAMINANTS	6	method	limit/base	current	history1		
PotassiumppmASTM D5185m>20<100FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOH/gASTM D80450.380.4380.366VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORMLNORMLNORMLNORMLAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Silicon	ppm	ASTM D5185m	>50		<1	2	
FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80450.380.4380.366VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG		ppm	ASTM D5185m		0	<1	<1	
Acid Number (AN)mg KOHgASTM D80450.380.4380.366VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Potassium	ppm	ASTM D5185m	>20	<1	0	0	
VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2	
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Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	VISUAL		method	limit/base	current	history1	history2	
Precipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG		scalar						
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Appearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	Debris	scalar	*Visual					
Odorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Emulsified Water scalar *Visual >0.2 NEG NEG NEG	••	scalar	*Visual	NORML		NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
Free Water scalar *Visual NEG SerWee Manager - NetSCHN	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG	
	Free Water	scalar	*Visual	(	NEG	SerWEEManag	er - FNELSCHN	



## **OIL ANALYSIS REPORT**



\* - 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)

lct3/22

2401 RIVER RD

US 12309

SCHENECTADY, NY

214