

## Machine Id KISSLING 64900276 JH EXPRESS GEARBOX Component Gearbox Fluid MOBIL DELVAC 1 SYNTHETIC GEAR SAE 75W90 (--- GAL)

RECO	MMEN	IDAT	ON

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

**WEAR** 

All component wear rates are normal.

## CONTAMINATION

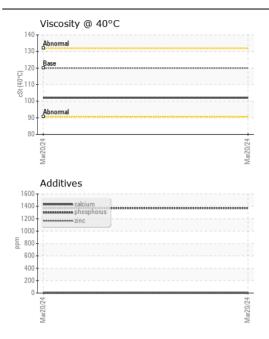
There is no indication of any contamination in the oil.

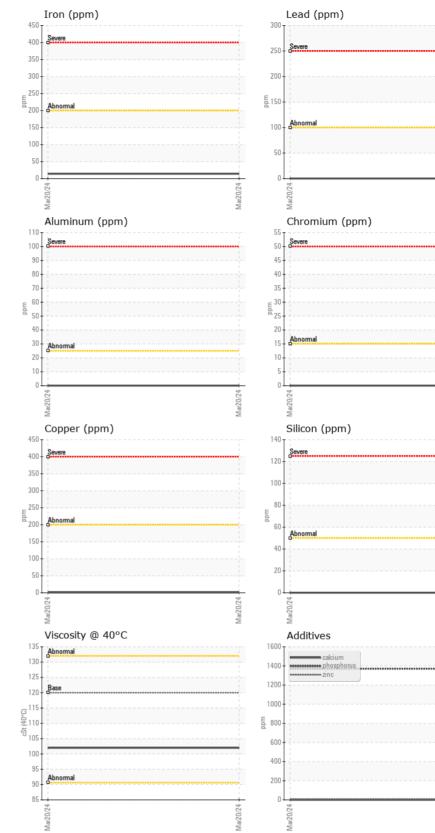
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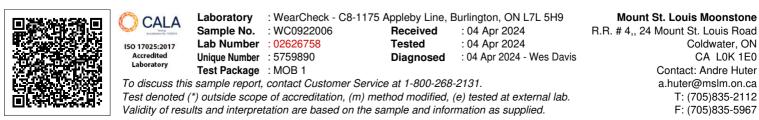
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

TestUOMMethodLimitAbCurrentHistory1History2Sample NumberClient InfoVC0922006Sample DateClient InfoU20 Mar 2024Machine AgehrsClient Info4966Oil AgehrsClient Info0Filter AgehrsClient InfoN/AFilter ChangedClient InfoN/AFilter ChangedClient InfoN/AFilter ChangedClient InfoN/AFilter ChangedPpmASTMD5185(m)>20014Sample StatusNORMALNickelppmASTMD5185(m)>150NickelppmASTMD5185(m)>150SilverppmASTMD5185(m)>250AuminumppmASTMD5185(m)>200-1VanadiumppmASTMD5185(m)>200VanadiumppmASTMD5185(m)>20-1VanadiumppmASTMD5185(m)>20-1VanadiumppmASTMD5185(m)>20-1VanadiumppmASTMD5185(m)>20-1Potassi		·····					
Sample Date         Client Info         20 Mar 2024             Machine Age         hrs         Client Info         4966             Oil Age         hrs         Client Info         0             Filter Age         hrs         Client Info         N/A             Filter Changed         Client Info         N/A             Sample Status         Viral         N/A             Iron         ppm         ASTMD5185(m)         >200         14             Nickel         ppm         ASTMD5185(m)         >15         0             Nickel         ppm         ASTMD5185(m)         >10              Aluminum         ppm         ASTMD5185(m)         >10              Adadium         ppm         ASTMD5185(m)         >200         <1             Vanadium         ppm         ASTMD5185(m)         >20         <1             Silicon         ppm         A	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age         hrs         Client Info         4966             Oil Age         hrs         Client Info         0             Filter Age         hrs         Client Info         N/A             Oil Changed         Client Info         N/A             Filter Changed         Client Info         N/A             Sample Status         VORMAL              Iron         ppm         ASTM D5185/m         >200         14             Chromium         ppm         ASTM D5185/m         >15         0             Nickel         ppm         ASTM D5185/m         >10              Silver         ppm         ASTM D5185/m         >200         0             Auminum         ppm         ASTM D5185/m         >200         <1             Vanadium         ppm         ASTM D5185/m         >20         0             Yellow Metal         scalar         Visua!	Sample Number		Client Info		WC0922006		
Oil Age         hrs         Client Info         I125            Filter Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Filter Changed         O         Client Info         N/A             Sample Status         NORMAL              Iron         ppm         ASTM05185(m)         >200         14             Nickel         ppm         ASTM05185(m)         >15         0             Nickel         ppm         ASTM05185(m)         >15         0             Aluminum         ppm         ASTM05185(m)         >25         0             Aluminum         ppm         ASTM05185(m)         >200         <1             Adminum         ppm         ASTM05185(m)         >20         <1             Vanadium         ppm         ASTM05185(m)         >20         <1             Value         visual*	Sample Date		Client Info		20 Mar 2024		
Filter Age Di Changed         Icient Info         0             Di Changed         Client Info         N/A             Filter Changed         Client Info         N/A             Sample Status         NORMAL             Iron         ppm         ASTM05185(m)         >200         14             Chromium         ppm         ASTM05185(m)         >15         0             Nickel         ppm         ASTM05185(m)         >15         0             Nickel         ppm         ASTM05185(m)         >25         0             Aluminum         ppm         ASTM05185(m)         >200         <1             Auminum         ppm         ASTM05185(m)         >200         <1             Vanadium         ppm         ASTM05185(m)         >200         <1             Vanadium         ppm         ASTM05185(m)         >20         <1             Vanadium	Machine Age	hrs	Client Info		4966		
Ol ChangedClient InfoN/AFilter ChangedClient InfoN/ASample StatusClient InfoNORMALIronppmASTM D5185(m)>20014ChromiumppmASTM D5185(m)>150NickelppmASTM D5185(m)>150NickelppmASTM D5185(m)>100SilverppmASTM D5185(m)>200AluminumppmASTM D5185(m)>20<1AluminumppmASTM D5185(m)>20<1VanadiumppmASTM D5185(m)>20<1VanadiumppmASTM D5185(m)>20<1Yellow MetalscalarVisual*NONENONESiliconppmASTM D5185(m)>20<1Yellow MetalscalarVisual*NONENONESiliconppmASTM D5185(m)>20<1SoliconppmASTM D5185(m)>20<1SoliconppmASTM D5185(m)>20<1SoliconppmASTM D5185(m)NORESoliconppmASTM D5185(m) <td< th=""><th>Oil Age</th><th>hrs</th><th>Client Info</th><th></th><th>1125</th><th></th><th></th></td<>	Oil Age	hrs	Client Info		1125		
Filter Changed         Client Info         N/A             Sample Status         NORMAL              Iron         ppm         ASTM D5185(m)         >200         14             Chromium         ppm         ASTM D5185(m)         >15         0             Nickel         ppm         ASTM D5185(m)         >15         0             Titanium         ppm         ASTM D5185(m)         >10         0             Aluminum         ppm         ASTM D5185(m)         >20         0             Aluminum         ppm         ASTM D5185(m)         >20         <1             Lead         ppm         ASTM D5185(m)         >20         <1             Vanadium         ppm         ASTM D5185(m)         >20         <1             Vanadium         ppm         ASTM D5185(m)         >20         <1             Vanadium         ppm         ASTM D5185(m)         >20         0	Filter Age	hrs	Client Info		0		
Sample Status         NORMAL             Iron         ppm         ASTM D5185(m)         >200         14             Chromium         ppm         ASTM D5185(m)         >15         0             Nickel         ppm         ASTM D5185(m)         >15         0             Titanium         ppm         ASTM D5185(m)         >15         0             Aluminum         ppm         ASTM D5185(m)         >200              Aluminum         ppm         ASTM D5185(m)         >200              Lead         ppm         ASTM D5185(m)         >20              Vanadium         ppm         ASTM D5185(m)         >20              Vanadium         ppm         ASTM D5185(m)         >20              Vanadium         ppm         ASTM D5185(m)         >50         0             Yellow Metal         scalar         Visual*         NONE         NONE	Oil Changed		Client Info		N/A		
Iron         ppm         ASTM D5185(m)         >200         14            Chromium         ppm         ASTM D5185(m)         >15         0            Nickel         ppm         ASTM D5185(m)         >15         0            Titanium         ppm         ASTM D5185(m)         >15         0            Silver         ppm         ASTM D5185(m)         >10         0            Aluminum         ppm         ASTM D5185(m)         >200             Lead         ppm         ASTM D5185(m)         >200             Vanadium         ppm         ASTM D5185(m)         >20             Vanadium         ppm         ASTM D5185(m)         >50         0             Vanadium         ppm         ASTM D5185(m) <td< th=""><th>Filter Changed</th><th></th><th>Client Info</th><th></th><th>N/A</th><th></th><th></th></td<>	Filter Changed		Client Info		N/A		
Imp         ASTM D5185(m)         >15         0             Nickel         ppm         ASTM D5185(m)         >15         0             Titanium         ppm         ASTM D5185(m)         0             Silver         ppm         ASTM D5185(m)         0             Aluminum         ppm         ASTM D5185(m)         >25         0             Lead         ppm         ASTM D5185(m)         >200         <1             Copper         ppm         ASTM D5185(m)         >200         <1             Vanadium         ppm         ASTM D5185(m)         >20         <1             Yellow Metal         scalar         Visual*         NONE	Sample Status				NORMAL		
Imp         ASTM D5185(m)         >15         0             Nickel         ppm         ASTM D5185(m)         >15         0             Titanium         ppm         ASTM D5185(m)         0             Silver         ppm         ASTM D5185(m)         0             Aluminum         ppm         ASTM D5185(m)         >25         0             Lead         ppm         ASTM D5185(m)         >200         <1             Copper         ppm         ASTM D5185(m)         >200         <1             Vanadium         ppm         ASTM D5185(m)         >20         <1             Yellow Metal         scalar         Visual*         NONE							
Nickel         pm         ASTM D5185(m)         >15         0            Titanium         ppm         ASTM D5185(m)         0             Silver         ppm         ASTM D5185(m)         0             Aluminum         ppm         ASTM D5185(m)         >25         0             Lead         ppm         ASTM D5185(m)         >100         0             Copper         ppm         ASTM D5185(m)         >20         <1             Tin         ppm         ASTM D5185(m)         >25         0             Vanadium         ppm         ASTM D5185(m)         >20         <1             Vanadium         ppm         ASTM D5185(m)         >20         0             Yellow Metal         scalar         Visual*         NONE         NONE             Silicon         ppm         ASTM D5185(m)         >20         <1             Suftar         scalar         Visual*         NONE         NONE <th>-</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	-						
Titanium         ppm         ASTM D5185(m)         0            Silver         ppm         ASTM D5185(m)         0            Aluminum         ppm         ASTM D5185(m)         >25         0            Lead         ppm         ASTM D5185(m)         >100         0            Copper         ppm         ASTM D5185(m)         >200         <1            Tin         ppm         ASTM D5185(m)         >25         0            Vanadium         ppm         ASTM D5185(m)         >25         0            White Metal         scalar         Visual*         NONE             Yellow Metal         scalar         Visual*         NONE             Silicon         ppm         ASTM D5185(m)         >20         <1             Yellow Metal         scalar         Visual*         NONE              Silicon         ppm         ASTM D5185(m)         >20         <1             Silit         scalar         Visual*         NORE			× 7		-		
Silver         ppm         ASTM D5185(m)         0            Aluminum         ppm         ASTM D5185(m)         >25         0            Lead         ppm         ASTM D5185(m)         >100         0            Copper         ppm         ASTM D5185(m)         >200         <1            Tin         ppm         ASTM D5185(m)         >25         0            Vanadium         ppm         ASTM D5185(m)         >25         0            White Metal         scalar         Visual*         NONE             Yellow Metal         scalar         Visual*         NONE         NONE             Silicon         ppm         ASTM D5185(m)         >50         0             Silicon         ppm         ASTM D5185(m)         >20         <1             Water         WC Method         >0.2         NEG             Sand/Dirt         scalar         Visual*         NONE             Sand/Dirt         scalar         Visual*			( )	>15	-		
Aluminum         ppm         ASTM D5185(m)         >25         0            Lead         ppm         ASTM D5185(m)         >100         0            Copper         ppm         ASTM D5185(m)         >200         <1            Tin         ppm         ASTM D5185(m)         >25         0            Vanadium         ppm         ASTM D5185(m)         >25         0            White Metal         scalar         Visual*         NONE         NONE            Yellow Metal         scalar         Visual*         NONE         NONE            Silicon         ppm         ASTM D5185(m)         >50         0             Vater         WC Method         >0.2         NEG             Silt         scalar         Visual*         NONE         NONE            Debris         scalar         Visual*         NOR         NORML            Appearance         scalar         Visual*         NORML         NORML            Godor         scalar         Visual*         >0.2         <					-		
Lead         ppm         ASTM D5185(m)         >100         0             Copper         ppm         ASTM D5185(m)         >200         <1             Tin         ppm         ASTM D5185(m)         >25         0             Vanadium         ppm         ASTM D5185(m)         >25         0             White Metal         scalar         Visual*         NONE         NONE             Yellow Metal         scalar         Visual*         NONE         NONE             Silicon         ppm         ASTM D5185(m)         >50         0             Vater         WC Method         >0.2         NEG             Silt         scalar         Visual*         NONE         NONE             Sand/Dirt         scalar         Visual*         NORE         NORML             Appearance         scalar         Visual*         NORML         NORML                Sodium         ppm         ASTM D51			( )		-		
Copper         ppm         ASTM D5185(m)         >200         <1		ppm	. ,		-		
TinppmASTM D5185(m)>250VanadiumppmASTM D5185(m)0White MetalscalarVisual*NONENONEYellow MetalscalarVisual*NONENONESiliconppmASTM D5185(m)>500PotassiumppmASTM D5185(m)>20<1WaterWC Method>0.2NEGSilitscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NORMNORMLAppearancescalarVisual*NORMNORMLOdorscalarVisual*NORMNORMLSodiumppmASTM D5185(m)-1BoronppmASTM D5185(m)0MaganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)-<1PhosphorusppmASTM D5185(m)-<1MagnesiumppmASTM D5185(m)-<1PhosphorusppmASTM D5185(m)-<1PhosphorusppmASTM D5185(m)- <td< th=""><th></th><th>ppm</th><th></th><th></th><th>0</th><th></th><th></th></td<>		ppm			0		
Vanadium         ppm         ASTM D5185(m)         0            White Metal         scalar         Visual*         NONE         NONE            Yellow Metal         scalar         Visual*         NONE         NONE            Yellow Metal         scalar         Visual*         NONE         NONE            Silicon         ppm         ASTM D5185(m)         >50         0             Potassium         ppm         ASTM D5185(m)         >20         <1             Water         WC Method         >0.2         NEG             Silt         scalar         Visual*         NONE         NONE             Sand/Dirt         scalar         Visual*         NONE         NORML             Appearance         scalar         Visual*         NORML         NORML             Odor         scalar         Visual*         NORML         NORML             Boron         ppm         ASTM D5185(m)         O        <		ppm		>200			
White MetalscalarVisual*NONENONEYellow MetalscalarVisual*NONENONESiliconppmASTM D5185(m)>500PotassiumppmASTM D5185(m)>20<1WaterWC Method>0.2NEGSiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONEVLITEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLSodiumppmASTM D5185(m)<11BoronppmASTM D5185(m)0MalganeseppmASTM D5185(m)0ManganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)<11371PhosphorusppmASTM D5185(m)6SulfurppmASTM D5185(m)6		ppm	( )	>25	-		
Yellow Metal         scalar         Visual*         NONE         NONE            Silicon         ppm         ASTM D5185(m)         >50         0             Potassium         ppm         ASTM D5185(m)         >20         <1             Water         WC Method         >0.2         NEG             Silt         scalar         Visual*         NONE         NONE             Silt         scalar         Visual*         NONE         NONE             Debris         scalar         Visual*         NONE         NONE             Sand/Dirt         scalar         Visual*         NORML         NORML             Appearance         scalar         Visual*         NORML         NORML             Odor         scalar         Visual*         NORML         NORML             Boron         ppm         ASTM D5185(m)          <1             Barium         ppm         ASTM D5185(m)         0		ppm			-		
Silicon         ppm         ASTM D5185(m)         >50         0            Potassium         ppm         ASTM D5185(m)         >20         <1             Water         WC Method         >0.2         NEG             Silt         scalar         Visual*         NONE         NONE             Sand/Dirt         scalar         Visual*         NONE         VLITE             Appearance         scalar         Visual*         NORML         NORML             Odor         scalar         Visual*         NORML         NORML             Sodium         ppm         ASTM D5185(m)          <1             Boron         ppm         ASTM D5185(m)          <1             Molybdenum         ppm         ASTM D5185(m)         0              Magnesium         ppm         ASTM D5185(m)         0              Magnesium         ppm         ASTM D5185(m) <td< th=""><th></th><th>scalar</th><th>Visual*</th><th>NONE</th><th>NONE</th><th></th><th></th></td<>		scalar	Visual*	NONE	NONE		
Potassium         ppm         ASTM D5185(m)         >20         <1	Yellow Metal	scalar	Visual*	NONE	NONE		
Potassium         ppm         ASTM D5185(m)         >20         <1	Silicon	maa	ASTM D5185(m)	>50	0		
WaterWC Method>0.2NEGSiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONEVLITEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLCodorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)<1BoronppmASTM D5185(m)0MalganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)<1PhosphorusppmASTM D5185(m)<1371ZincppmASTM D5185(m)6SulfurppmASTM D5185(m)6					-		
SiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONEVLITEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)<1BoronppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0CalciumppmASTM D5185(m)<11PhosphorusppmASTM D5185(m)<6SulfurppmASTM D5185(m)6		1-1-			NEG		
DebrisscalarVisual*NONENONESand/DirtscalarVisual*NONEVLITEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLDdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)BoronppmASTM D5185(m)0BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)PhosphorusppmASTM D5185(m)ZincppmASTM D5185(m)6SulfurppmASTM D5185(m)6	Silt	scalar	Visual*		NONE		
AppearancescalarVisual*NORMLNORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)<1BoronppmASTM D5185(m)290BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0ManganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0CalciumppmASTM D5185(m)<11PhosphorusppmASTM D5185(m)6SulfurppmASTM D5185(m)6					NONE		
OdorscalarVisual*NORMLNORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)<1BoronppmASTM D5185(m)290<BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0ManganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0CalciumppmASTM D5185(m)<11PhosphorusppmASTM D5185(m)6SulfurppmASTM D5185(m)6	Sand/Dirt	scalar	Visual*	NONE	VLITE		
OdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)<1BoronppmASTM D5185(m)290BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0ManganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0CalciumppmASTM D5185(m)<1PhosphorusppmASTM D5185(m)6ZincppmASTM D5185(m)6SulfurppmASTM D5185(m)6	Appearance	scalar	Visual*	NORML	NORML		
Sodium         ppm         ASTM D5185(m)         <1		scalar	Visual*	NORML	NORML		
Boron         ppm         ASTM D5185(m)         290             Barium         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         0             Phosphorus         ppm         ASTM D5185(m)         <1             Zinc         ppm         ASTM D5185(m)         6             Sulfur         ppm         ASTM D5185(m)         22406	Emulsified Water	scalar	Visual*	>0.2	NEG		
Boron         ppm         ASTM D5185(m)         290             Barium         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         0             Phosphorus         ppm         ASTM D5185(m)         <1             Zinc         ppm         ASTM D5185(m)         6             Sulfur         ppm         ASTM D5185(m)         22406							
Barium         ppm         ASTM D5185(m)         0            Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         0             Phosphorus         ppm         ASTM D5185(m)         <1             Zinc         ppm         ASTM D5185(m)         6             Sulfur         ppm         ASTM D5185(m)         6	Sodium	ppm	ASTM D5185(m)		<1		
Molybdenum         ppm         ASTM D5185(m)         O             Manganese         ppm         ASTM D5185(m)         O             Magnesium         ppm         ASTM D5185(m)         O             Calcium         ppm         ASTM D5185(m)         <1             Phosphorus         ppm         ASTM D5185(m)         <1371             Zinc         ppm         ASTM D5185(m)         6             Sulfur         ppm         ASTM D5185(m)         22406	Boron	ppm	ASTM D5185(m)		290		
Manganese         ppm         ASTM D5185(m)         0            Magnesium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         c1             Phosphorus         ppm         ASTM D5185(m)         1371             Zinc         ppm         ASTM D5185(m)         6             Sulfur         ppm         ASTM D5185(m)         22406	Barium	ppm	ASTM D5185(m)		0		
Magnesium         ppm         ASTM D5185(m)         0            Calcium         ppm         ASTM D5185(m)         <1            Phosphorus         ppm         ASTM D5185(m)         1371            Zinc         ppm         ASTM D5185(m)         6            Sulfur         ppm         ASTM D5185(m)         22406	Molybdenum	ppm	ASTM D5185(m)		0		
Calcium         ppm         ASTM D5185(m)         <1	Manganese	ppm	ASTM D5185(m)		0		
Phosphorus         ppm         ASTM D5185(m)         1371            Zinc         ppm         ASTM D5185(m)         6            Sulfur         ppm         ASTM D5185(m)         22406	Magnesium	ppm	ASTM D5185(m)		0		
Zinc         ppm         ASTM D5185(m)         6            Sulfur         ppm         ASTM D5185(m)         22406	Calcium	ppm	ASTM D5185(m)		<1		
Sulfur         ppm         ASTM D5185(m)         22406	Phosphorus	ppm	ASTM D5185(m)		1371		
	Zinc	ppm	ASTM D5185(m)		6		
Visc @ 40°C cSt ASTM D7279(m) 120 102	Cultur				00400		
	Sullui	ppm	ASTM D5185(m)		22406		

Contact/Location: Andre Huter - MOUCOL







Contact/Location: Andre Huter - MOUCOL Page 2 of 2