

Machine Id **KENWORTH Patriot** Component **Diesel Engine** CHEVRON DELO 400 LE 15W40 (--- GAL)

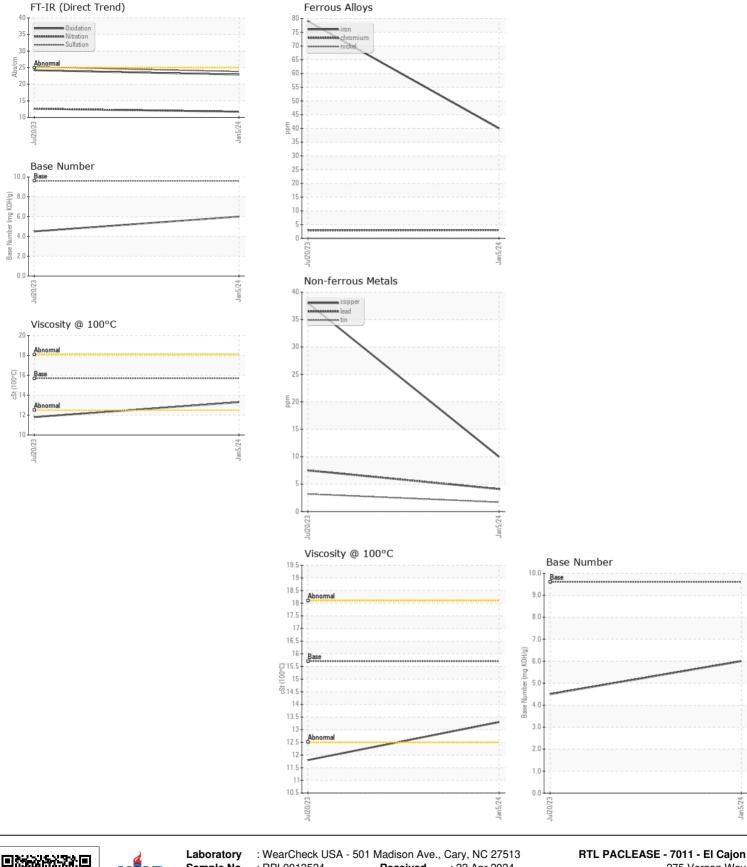
Brample Number Client Info 65.392 20.402.023 Sample Number Client Info 65.392 20.40.202 Machine Age mis Client Info 4652 21523 Of Age mis Client Info 23124 21523 Of Age mis Client Info 23124 21523 Of Changed Client Info Changed Changed Changed Changed Changed Changed Of Changed Client Info Changed Changed Changed Of Changed Client Info Changed Changed Changed Sample Status Tim Ppm ASTI0585 -0 0 All component wear rales are normal. Point Mission -3 -1 All component wear rales are normal. Point Mission -3 All component wear rales are normal. Point Mission -3	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Beaample at the next service interval to monitor. Sample Dat Machine Age Clint Info 95 Jan 2001 (1000000000000000000000000000000000								,
Oil Age mis Client Info 5124 2120 Filter Changed Oil Change Client Info Changed Filter Changed Oil Changed Client Info Changed Sample Status Client Info Changed WEAR Iron ppm ASIIL0556n -100 400 79 All component wear rates are normal. Iron ppm ASIIL0556n -20 3 3 Nicke ppm ASIIL0556n -20 3 All component wear rates are normal. Iron ppm ASIIL0556n -20 17 12.2 Aluminum ppm ASIIL0556n -30 0 Vanadum ppm ASIIL0556n -30 10 Vanadum ppm ASIIL0556n -50 15 4.7 Vanadum ppm ASIIL0556n -52	Resample at the next service interval to monitor.	Sample Date		Client Info		05 Jan 2024	20 Jul 2023	
Filter Age mis Client Info Variable 2124 21529		Machine Age	mls	Client Info		44652	21529	
OI Changad Filter Ohangad Client Into Inter Into Samuel Client Into Inter Into Samuel Changad Inter Into Inter Inter Into Inter Inter Into Inter Inter Inter Inter Into Inter Inter Int		Oil Age	mls	Client Info		23124	21529	
Filter Changed Sample Status Cincinito NORMA Changed NTENTION		Filter Age	mls	Client Info		23124	21529	
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All component wear rates are normal. Chromium ppm ASTM 0518m >20 3 3 Nickel ppm ASTM 0518m >3 <1		Sample Status				NORMAL	ATTENTION	
All component wear rates are normal. Chromium ppm ASTM 0518m >20 3 3 Nickel ppm ASTM 0518m >3 <1	WEAR	Iron	ppm	ASTM D5185m	>100	40	79	
All component wear rates are normal. Nickel ppm ASTM (SISIs) s4 0 0 Titanium ppm ASTM (SISIs) s3 c1 All uminum ppm ASTM (SISIs) s3 c1 Lead ppm ASTM (SISIs) s30 10 38 Copper ppm ASTM (SISIs) s30 10 38 Tin ppm ASTM (SISIs) s30 10 38 Value ccatar 'Visual NONE NONE NONE NONE NONE Pation ppm ASTM (SISIs) s2 15 4.7 CONTAMINATION Silicon ppm ASTM (SISIs) s20 47 54 There is no indication of any contamination in the oil. Silicon ppm ASTM (SISIs) s20 47 54 Water Co Visual NONE NONE NONE NONE NONE NONE <th rowspan="6"></th> <th>Chromium</th> <th></th> <th>ASTM D5185m</th> <th>>20</th> <th>3</th> <th></th> <th></th>		Chromium		ASTM D5185m	>20	3		
Titanium ppm ASTM 05180m 0 <1		Nickel				0	0	
Silver pp ASTM 05185n >3 <1		Titanium		ASTM D5185m		0	<1	
Aluminum ppm ASTM D5185m >20 17 12 Lead ppm ASTM D5185m >30 4 8 Copper ppm ASTM D5185m >310 10 8 Tin ppm ASTM D5185m >15 2 3 White Metal scalar 'Visual NONE NONE NONE NONE White Metal scalar 'Visual NONE NONE NONE There is no indication of any contamination in the oil. Silicon ppm ASTM D5185m >25 15 4.7 Value VC WC Method >0.2 NEG NEG Silicon ppm ASTM D5185m >2.5 15 4.7 Value WC Method >0.2 NEG NEG Silicon Asim Yisual NONE NORE NORE		Silver			>3	<1	<1	
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Copper ppm ASTM D5155m >330 10 38 Tin ppm ASTM D5155m >15 2 3 Vanadium ppm ASTM D5155m >15 2 3 White Metal scalar Visual NONE NONE NONE CONTAMINATION Stillion ppm ASTM D5155m >20 47 54 There is no indication of any contamination in the oil. Stillion ppm ASTM D5155m >20 47 54 Water WC Method >0.2 NEG NEG Glycol WC Method >0.2 NEG NEG Suffation Abs: Itm Yisual NONE NEG NONE Suffation Abs: Itm Yisual NONE NONE NONE Suffation Abs: Itm Yisual NONE NONE <t< th=""><th>Lead</th><th></th><th></th><th></th><th></th><th>8</th><th></th></t<>		Lead					8	
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Vanadium ppm ASTM D5185m Image: Constraints of the origon of the ori						2	3	
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Potassium ppm ASTM D5185m >20 47 54 Fuel WC Method >5 <1.0 0.8 Water WC Method >0.2 NEG NEG Glycol WC Method >0.2 NEG NEG Soot % % 'ASTM D7844 >3 0.3 0.3 Soot % % 'ASTM D7844 >3 0.3 0.3 Soot % % 'ASTM D7844 >3 0.3 0.3 Sold faiton Abs/cm 'ASTM D7844 >30 0.3 0.3 Sold faiton Abs/cm 'ASTM D7844 >30 0.3 0.3 Sold faiton Abs/cm 'ASTM D7844 >30 0.3 0.3 Debris scalar 'Visual NOR NORE NORE NORE Appearance scalar 'Visual NOR NORE <t< th=""><th></th><th>Yellow Metal</th><th>scalar</th><th>*Visual</th><th>NONE</th><th>NONE</th><th>NONE</th><th></th></t<>		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Potassium ppm ASTM D5185m >20 47 54 Fuel WC Method >5 <1.0 0.8 Water WC Method >0.2 NEG NEG Glycol WC Method >0.2 NEG NEG Soot % % 'ASTM D7844 >3 0.3 0.3 Soot % % 'ASTM D7844 >3 0.3 0.3 Soot % % 'ASTM D7844 >3 0.3 0.3 Sold faiton Abs/cm 'ASTM D7844 >30 0.3 0.3 Sold faiton Abs/cm 'ASTM D7844 >30 0.3 0.3 Sold faiton Abs/cm 'ASTM D7844 >30 0.3 0.3 Debris scalar 'Visual NOR NORE NORE NORE Appearance scalar 'Visual NOR NORE <t< th=""><th>CONTAMINATION</th><th>Silicon</th><th>maa</th><th>ASTM D5185m</th><th>>25</th><th>15</th><th>47</th><th></th></t<>	CONTAMINATION	Silicon	maa	ASTM D5185m	>25	15	47	
There is no indication of any contamination in the oil. Fuel WC Method >5 <1.0 0.8 Water I WC Method >0.2 NEG NEG Glycol WC Method >0.2 NEG NEG Soot % % XSTM D7844 >30 0.3 0.3 Nitration Abs/rm 'ASTM D7844 >30 0.3 0.3 Sulfation Abs/rm 'ASTM D7844 >30 23.8 25.2 Sulfation scalar 'Visual NONE NONE NONE Appearance scalar 'Visual NORM NORML NORML The BN result indi				ASTM D5185m	>20			
Water WC Method >0.2 NEG NEG Glycol WC Method >0.3 0.3 0.3 Soot % % 'ASTM D784 >3 0.3 0.3 Nitration Abs/cm 'ASTM D784 >30 21.7 12.6 Sulfation Abs/cm 'ASTM D784 >30 23.8 25.2 Sulfation Abs/cm 'Nisual NONE NONE NONE NONE Debris scalar 'Visual NONE NONE NONE Appearance scalar 'Visual NORE NORE Odor scalar 'Visual NORE NORE The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Sofium pm ASTM D5185m 11 30 Manganese ppm ASTM D5185m 13 8 <th rowspan="11">There is no indication of any contamination in the oil.</th> <th></th> <th>lelerri</th> <th></th> <th></th> <th></th> <th></th> <th></th>	There is no indication of any contamination in the oil.		lelerri					
Glycol WC Method NEG NEG Soot % % *ASTM D784 \$-3 0.3 0.3 Nitration Abs/cm *ASTM D784 \$-20 11.7 12.6 Sulfation Abs/lm *ASTM D784 \$-00 ADNCE NONE NONE Sulfation Abs/lm *ASTM D784 \$-00 ADNCE ADNCE Sulfation Abs/lm *ASTM D784 \$-00 ADNCE NONE Sulfation Abs/lm *ASTM D784 NONE NONE NONE Sulfation Scalar *Visual NONE NONE NONE Debris Scalar *Visual NOR NORM NORM Appearance Scalar *Visual NOR NORM NORM Boron ppm ASTM D5185m 5 1 3 8 Nolybdenum								
Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 11.7 12.6 Sulfation Abs/tm *ASTM D7624 >20 11.7 12.6 Sulfation Abs/tm *ASTM D7624 >20 11.7 12.6 Sulfation Abs/tm *ASTM D7624 >20 NONE NONE NONE Sulfation Abs/tm *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NORML NORML Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML FLUID CONDITION Sodium ppm ASTM D7185m 3 8 Barium ppm ASTM D5185m S1 11 30								
Nitration Abs/cm 'ASTM D762 >20 11.7 12.6 Sulfation Abs/tm 'ASTM D7415 >30 23.8 25.2 Silt scalar 'Visual NONE NONE NONE Debris scalar 'Visual NONE NONE NONE Sand/Dirt scalar 'Visual NOR NONE NONE Appearance scalar 'Visual NORM NORML NORML Odor scalar 'Visual NORML NORML NORML Odor scalar 'Visual NORML NORML NORML The BN result indicates that there is suitable alkalinity remaining in the oil is suitable for further service. Sodium ppm ASTM D5185m 11 30 Barium ppm ASTM D5185m 1 3 8 Magnesium ppm ASTM D5185m 10 11			%	*ASTM D7844	>3		0.3	
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Siltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*VisualNORMLNORMLNORMLBronppmASTM D5185mS38BariumppmASTM D5185m10111300BariumppmASTM D5185m120611155MaganeseppmASTM D5185m120611155MaganeseppmASTM D5185m12010121416PhosphorusppmASTM D5185m1201014756ZincppmASTM D5185m12010121241QidationppmASTM D5185m12010121241SilfurppmASTM D5185m12010121241Qidationkiffkiffkiff12412242SilfurppmASTM D5185m12010121242Xiffkiffkiffkiffkiffkiff22.		Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8		
Debrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMNORMLNORMLOdorscalar*VisualNORMNORMLNORMLOdorscalar*VisualNORNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGSodiumppmASTM D5185m38BoronppmASTM D5185m38BariumppmASTM D5185m1130ManganeseppmASTM D5185m38ManganesimppmASTM D5185m38MagnesiumppmASTM D5185m38MagnesiumppmASTM D5185m38PhosphorusppmASTM D5185m12001149PhosphorusppmASTM D5185m130012219280QidationppmASTM D5185m130012129279Qidationkbs//m'ASTM D7141>2522.924.2		Silt	scalar			NONE	NONE	
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Odorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGFLUID CONDITIONThe BN result indicates that there is suitable alkalinity remaining in the oil is suitable for further service.SodiumppmASTM D5185mI1130BoronppmASTM D5185mI1130I38IBariumppmASTM D5185mI6115IIIIMaganeseeppmASTM D5185mI6115IIIIMagnesiumppmASTM D5185mI945831II <t< th=""><th>Sand/Dirt</th><th>scalar</th><th>*Visual</th><th></th><th>NONE</th><th></th><th></th></t<>		Sand/Dirt	scalar	*Visual		NONE		
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Barium ppm ASTM D5185m 2 0 Molybdenum ppm ASTM D5185m 61 15 Manganese ppm ASTM D5185m 3 8 Magnesium ppm ASTM D5185m 6 945 831 Calcium ppm ASTM D5185m 1192 1497 Phosphorus ppm ASTM D5185m 1200 1014 756 Zinc ppm ASTM D5185m 1300 1221 928 Sulfur ppm ASTM D5185m 3200 3107 2979 Oxidation Abs/.tmm *ASTM D7414 >25 22.9 24.2		Boron		ASTM D5185m		11	30	
Molybdenum ppm ASTM D5185m 61 15 Manganese ppm ASTM D5185m 3 8 Magnesium ppm ASTM D5185m 3 831 Magnesium ppm ASTM D5185m 945 831 Calcium ppm ASTM D5185m 1192 1497 Phosphorus ppm ASTM D5185m 1200 1014 756 Zinc ppm ASTM D5185m 1300 1221 928 Sulfur ppm ASTM D5185m 3200 3107 2979 Oxidation Abs/.1mm *ASTM D7414 >25 22.9 24.2								
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Phosphorus ppm ASTM D5185m 1200 1014 756 Zinc ppm ASTM D5185m 1300 1221 928 Sulfur ppm ASTM D5185m 3200 3107 2979 Oxidation Abs/.1mm *ASTM D7414 >25 22.9 24.2		Calcium						
Zinc ppm ASTM D5185m 1300 1221 928 Sulfur ppm ASTM D5185m 3200 3107 2979 Oxidation Abs:/tmm *ASTM D7414 >25 22.9 24.2					1200	1014	756	
Sulfur ppm ASTM D5185m 3200 3107 2979 Oxidation Abs/.1mm *ASTM D7414 >25 22.9 24.2		•					928	
Oxidation Abs/.1mm *ASTM D7414 >25 22.9 24.2		Sulfur						
				*ASTM D7414	>25			
		Base Number (BN)	mg KOH/g	ASTM D2896	9.6			

Visc @ 100°C cSt

ASTM D445 15.7

11.8

13.3



Sample No. Received 275 Vernon Way : RPL0013524 : 22 Apr 2024 El Cajon, CÁ Lab Number : 06155673 Tested : 23 Apr 2024 Diagnosed Unique Number : 10991096 : 24 Apr 2024 - Don Baldridge US 92020 Test Package : FLEET Contact: Rudy Manager Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. TrevizoR@RushEnterprises.Com T: (909)829-1044 * - 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) F: