

OIL ANALYSIS REPORT

Sample Rating Trend





Component Rear Differential

Fluid

CHEVRON DELO SYNTHETIC GEAR 75W90 (5 hrs)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

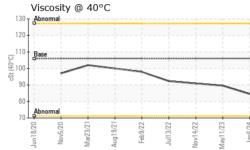
Fluid Condition

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

Sample Date Client Info 06 Jan 2024 11 May 2023 14 Nov 2022 Machine Age hrs Client Info 224390 224390 177122 Oil Age hrs Client Info 224390 0 177122 Oil Changed Client Info Not Changed Not Changed Abs NorMAL ABs NorMAL CONTAMINATION method limit/base current history1 history1 history2 Water WC Method >.2 NEG NEG NEG WeAR METALS method limit/base current history1 history2 Iron ppm ASTM 05185m >10 2 <1 <1 Nickel ppm ASTM 05185m >10 4 8 7 Itanium ppm ASTM 05185m 0 0 <1 0 Automium ppm ASTM 05185m >10 0 0 0 Automium ppm ASTM 05185m 0 0 0	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 224390 224390 177122 Oil Age hrs Client Info 224390 0 177122 Oil Changed Client Info Not Changd ABNORMAL ABNORMAL ABNORMAL Sample Status Init Not Changd Not Changd ABNORMAL ABNORMAL ABNORMAL Water WC Method >.2 NEG NEG NEG Water WC Method >.2 NEG NEG NEG Iron ppm ASTM 05185n >500 227 125 110 Chromium ppm ASTM 05185n 10 4 8 7 Nickel ppm ASTM 05185n 10 0 0 0 Silver ppm ASTM 05185n 25 6 18 17 Lead ppm ASTM 05185n 100 0 0 0 Vanadium ppm ASTM 05185n 10 0 0 0	Sample Number		Client Info		PCA0114710	PCA0098270	PCA0084935
Machine Age hrs Client Info 224390 224390 177122 Oil Age hrs Client Info Not Changd Not Changd Not Changd Not Changd ABNORMAL A	,		Client Info		06 Jan 2024	11 May 2023	14 Nov 2022
Oil Age hrs Client Info 224390 0 177122 Oil Changed Client Info Not Changed Not Changed Not Changed Sample Status Client Info Not Changed ABNORMAL ABNORMAL CONTAMINATION method Innit/base current history1 history1 Water WC Method >.2 NEG NEG NEG Chromium ppm ASTM 05185m 500 227 125 110 Chromium ppm ASTM 05185m >10 4 8 7 Nickel ppm ASTM 05185m >10 2 -1 -1 Nickel ppm ASTM 05185m 0 0 -1 1 Silver ppm ASTM 05185m 25 6 18 17 Lead ppm ASTM 05185m >25 0 0 0 Capper ppm ASTM 05185m 10 0 0 0 Cappen ppm ASTM 05185m 129 2110 0 Ca		hrs	Client Info		224390	,	177122
Oil Changed Sample StatusClient InfoNet Changed NORMALNot Changed ABNORMALNot Changed ABNORMALCONTAMINATIONmethodlimit/basecurrenthistory1history2WaterWC Method>.2NEGNEGNEGWEAR METALSmethodlimit/basecurrenthistory1history2IronppmASTM 05185m>500227125110ChromiumppmASTM 05185m>10487TitaniumppmASTM 05185m>2561817LeadppmASTM 05185m>25000CopperppmASTM 05185m>10<1	•	hrs	Client Info		224390	0	177122
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Water WC Method >.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185n >500 227 125 110 Chromium ppm ASTM D5185n >10 4 8 7 Titanium ppm ASTM D5185n >10 4 8 7 Silver ppm ASTM D5185n >10 0 0 -1 Aluminum ppm ASTM D5185n >25 6 18 17 Lead ppm ASTM D5185n >10 0 0 0 Copper ppm ASTM D5185n 10 0 0 0 Vanadium ppm ASTM D5185n 15 7 7 7 Boron ppm ASTM D5185n 15 7 7 7 Maganese ppm ASTM D5185n 153 129 1290 <t< th=""><th>· · · · · · · · · · · · · · · · · · ·</th><th>ION</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<>	· · · · · · · · · · · · · · · · · · ·	ION	method	limit/base	current	history1	history2
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Nickel ppm ASTM D5185m >10 4 8 7 Titanium ppm ASTM D5185m 0 <1	Iron	ppm	ASTM D5185m	>500	227	125	110
Titanium ppm ASTM D5185m 0 <1 0 Silver ppm ASTM D5185m 0 0 <1	Chromium	ppm	ASTM D5185m	>10	2	<1	<1
SilverppmASTM D5185m00<<1AluminumppmASTM D5185m<>2561817LeadppmASTM D5185m<>25000CopperppmASTM D5185m<>100<1	Nickel	ppm	ASTM D5185m	>10	4	8	7
Aluminum ppm ASTM D5185m >25 6 18 17 Lead ppm ASTM D5185m >25 0 0 0 Copper ppm ASTM D5185m >100 <1	Titanium	ppm	ASTM D5185m		0	<1	0
Lead ppm ASTM D5185m >25 0 0 0 Copper ppm ASTM D5185m >100 <1	Silver	ppm	ASTM D5185m		0	0	<1
Copper ppm ASTM D5185m >100 <1 <1 <1 <1 Tin ppm ASTM D5185m >10 0 0 0 Vanadium 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 207 231 235 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 15 7 7 Magnese ppm ASTM D5185m 129 57 50 Calcium ppm ASTM D5185m 1353 1299 1290 Zinc ppm ASTM D5185m 1353 1299 2170 Sulfur ppm ASTM D5185m 22427 24597 27112 CONTAMINANTS method	Aluminum	ppm	ASTM D5185m	>25	6	18	17
TinppmASTM D5185m>10000VanadiumppmASTM D5185m000CadmiumppmASTM D5185m000ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m207231235BariumppmASTM D5185m000MolybdenumppmASTM D5185m1577ManganeseppmASTM D5185m1295750CalciumppmASTM D5185m135312991290PhosphorusppmASTM D5185m135312991290ZincppmASTM D5185m13339281SulfurppmASTM D5185m13339281SulfurppmASTM D5185m224272459727112CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>202<1	Lead	ppm	ASTM D5185m	>25	0	0	0
Vanadium 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 207 231 235 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 15 7 7 Manganese ppm ASTM D5185m 129 57 50 Calcium ppm ASTM D5185m 129 57 50 Calcium ppm ASTM D5185m 1353 1299 1290 Zinc ppm ASTM D5185m 1353 1299 1290 Zinc ppm ASTM D5185m 22427 24597 27112 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 2 1 0 Votassium ppm	Copper	ppm	ASTM D5185m	>100	<1	<1	<1
CadmiumppmASTM D5185m000ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m207231235BariumppmASTM D5185m000MolybdenumppmASTM D5185m1577MagneseppmASTM D5185m1295750CalciumppmASTM D5185m12179490PhosphorusppmASTM D5185m135312991290ZincppmASTM D5185m1939281SulfurppmASTM D5185m224272459727112CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m20210PotassiumppmASTM D5185m20210VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONESilitscalar*VisualNONENONENONENONENONESilitscalar*VisualNONENONENONENONENONESilitscalar*VisualNONENONENONENONENONESodiumpprscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONE<	Tin	ppm	ASTM D5185m	>10	0	0	0
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BariumppmASTM D5185m0000MolybdenumppmASTM D5185m1577ManganeseppmASTM D5185m222MagnesiumppmASTM D5185m1295750CalciumppmASTM D5185m2179490PhosphorusppmASTM D5185m135312991290ZincppmASTM D5185m1939281SulfurppmASTM D5185m224272459727112CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m2100PotassiumppmASTM D5185m22100PotassiumppmASTM D5185m>202<12VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONESoduryisualNONENONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONESolutscalar*VisualNONE	ADDITIVES		method	limit/base	current	history1	history2
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ManganeseppmASTM D5185m222MagnesiumppmASTM D5185m1295750CalciumppmASTM D5185m2179490PhosphorusppmASTM D5185m135312991290ZincppmASTM D5185m1939281SulfurppmASTM D5185m224272459727112CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>75368979SodiumppmASTM D5185m210PotassiumppmASTM D5185m2210PotassiumppmASTM D5185m>202<1	Barium	ppm	ASTM D5185m		0	0	0
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SiliconppmASTM D5185m>75368979SodiumppmASTM D5185m210PotassiumppmASTM D5185m>202<12VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>.2NEGNEGNEG	Sulfur	ppm	ASTM D5185m		22427	24597	27112
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PotassiumppmASTM D5185m>202<12VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>.2NEGNEGNEG	Silicon	ppm	ASTM D5185m	>75	36	<u> </u>	1 79
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Emulsified Waterscalar*Visual>.2NEGNEGFree Waterscalar*VisualNEGNEGNEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
		scalar	*Visual	>.2	NEG	NEG	NEG
:10:09) Rev: 1 Submitted By: Paul Riddic	Emulsified Water	Journa	FIGURE				
	Emulsified Water Free Water					NEG	



OIL ANALYSIS REPORT



	FLUID PROP	ERTIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	106	84.5	89.6	90.9
	SAMPLE IMA	GES	method	limit/base	current	history1	history2
22	Color				no image	no image	no image
Nov14/22 May11/23 Jan6/24	Bottom				no image	no image	no image
	GRAPHS						
	Ferrous Alloys						
	100 50 0 102.87ml 102.82ml 102.		Nov14/22 May11/23	Jan624			
	Non-ferrous Met	als					
	9 - copper 8 - tin						
	6						
	ي ج 4						
	3 - 2						
			ABAD	_			
	Jun18/20 Nov5/20 Mar23/21	Feb 9/22	Nov14/22 May11/23	Jan6/24			
	਼ੋਂ ਟੋ ਵੱ Viscosity @ 40°C		No	7			
	130 Abnormal						
	120						
0	Base		******				
54	90						
	80-			/			
	Abnormal						
	Jun18/20 - Nov5/20 - Mar23/21 -	Feb9/22 Jul13/22	Nov14/22 May11/23	Jan6/24			
Laboratory Sample No. Lab Number Unique Number Test Package	: WearCheck USA - : PCA0114710 : 06063922 : 10835304 : FLEET	501 Madis Recieved Diagnose Diagnosti	on Ave., Ca : 17 . :d : 18 .	rry, NC 2751 Jan 2024 Jan 2024 s Davis		Contact: GEOR	NDENCE BLVD COLUMBIA, SC US 29210



Test Package : FLEET Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - 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)

gedwards@nwwhite.com

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F: