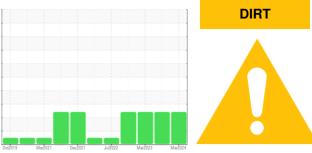


OIL ANALYSIS REPORT





Machine Id

DT643

Component Rear Differential

Fluid CHEVRON RPM SYNTHETIC GEAR 75W90 (3 GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

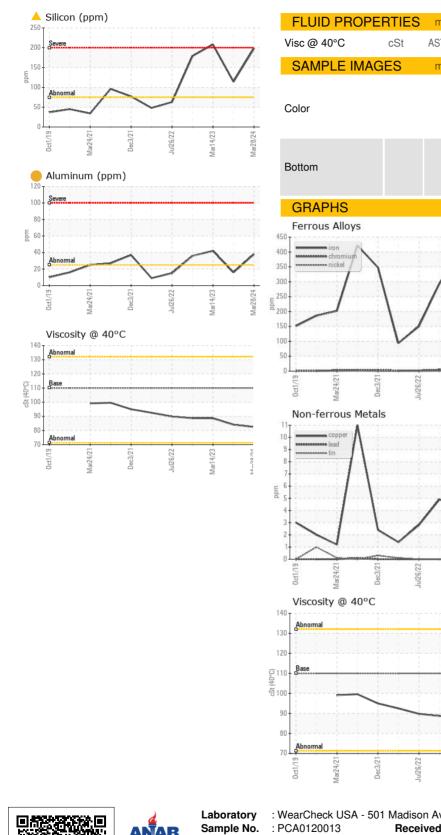
Fluid Condition

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

SAMPLE INFORM	/ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0120013	PCA0107434	PCA0092516
Sample Date		Client Info		28 Mar 2024	16 Oct 2023	14 Mar 2023
Machine Age	mls	Client Info		237542	237542	211985
Oil Age	mls	Client Info		211985	9245	145156
Oil Changed		Client Info		N/A	Not Changd	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATI		method	limit/base			
				current	history1	history2
Water	•	WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m		404	261	400
Chromium	ppm	ASTM D5185m	>10	4	2	4
Nickel	ppm	ASTM D5185m	>10	<1	<1	<1
Titanium	ppm	ASTM D5185m		2	1	2
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<mark> </mark> 38	<u> </u>	42
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>100	3	0	4
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	<1	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		233	201	204
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		13	11	8
Manganese	ppm	ASTM D5185m		5	3	5
Magnesium	ppm	ASTM D5185m		122	121	89
Calcium	0.00	ASTM D5185m		236	210	149
	ppm	ASTIVI DSTOSIII				145
Phosphorus	ppm	ASTM D5185m		1461	1381	1352
				1461 198	1381 191	
Phosphorus	ppm	ASTM D5185m		-		1352
Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base	198	191	1352 140
Phosphorus Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		198 25777	191 21780	1352 140 25860
Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m method		198 25777 current	191 21780 history1	1352 140 25860 history2
Phosphorus Zinc Sulfur CONTAMINAN ⁻ Silicon	ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>75	198 25777 current ▲ 198	191 21780 history1 ▲ 114	1352 140 25860 history2 ▲ 208
Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75	198 25777 current ▲ 198 10	191 21780 history1 ▲ 114 2	1352 140 25860 history2 ▲ 208 3
Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20	198 25777 current ▲ 198 10 11	191 21780 history1 ▲ 114 2 5	1352 140 25860 history2 ▲ 208 3 8
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL	ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 limit/base	198 25777 current ▲ 198 10 11 current	191 21780 history1 ▲ 114 2 5 history1	1352 140 25860 history2 ▲ 208 3 8 8 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm TS ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual	>75 >20 limit/base NONE	198 25777 current ▲ 198 10 11 current NONE	191 21780 history1 ▲ 114 2 5 history1 NONE	1352 140 25860 history2 ▲ 208 3 8 8 history2 NONE
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm TS ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual	>75 >20 limit/base NONE NONE	198 25777 current ▲ 198 10 11 current NONE NONE	191 21780 history1 ▲ 114 2 5 history1 NONE NONE	1352 140 25860 history2 ▲ 208 3 8 8 history2 NONE NONE
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE	198 25777 current ▲ 198 10 11 11 current NONE NONE NONE	191 21780 history1 ▲ 114 2 5 history1 NONE NONE NONE NONE	1352 140 25860
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE NONE	198 25777 current 198 10 11 11 current NONE NONE NONE NONE MODER	191 21780 history1 ▲ 114 2 5 history1 NONE NONE NONE NONE NONE	1352 140 25860
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL Vhite Metal Yellow Metal Precipitate Silt Debris	ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 limit/base NONE NONE NONE NONE NONE	198 25777 current ▲ 198 10 11 current NONE NONE NONE MODER NONE	191 21780 history1 ▲ 114 2 5 history1 NONE NONE NONE NONE NONE NONE	1352 140 25860
Phosphorus Zinc Sulfur CONTAMINAN CONTAMINAN Sodium Sodium Potassium VISUAL Vhite Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 Iimit/base NONE NONE NONE NONE NONE	198 25777 current ▲ 198 10 11 current NONE NONE NONE NONE NONE NONE NONE NONE	191 21780 history1 ▲ 114 2 5 history1 NONE NONE NONE NONE NONE NONE NONE NONE	1352 140 25860
Phosphorus Zinc Sulfur CONTAMINAN Sodium Sodium Potassium VISUAL White Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>75 20 Imit/base NONE NONE NONE NONE NONE NONE NONE	198 25777 current ▲ 198 10 11 current NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	191 21780 history1 ▲ 114 2 5 history1 NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	1352 140 25860
Phosphorus Zinc Sulfur CONTAMINAN Solicon Sodium Potassium VISUAL White Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>75 20 Imit/base NONE NONE NONE NONE NONE NONE NONE NON	198 25777 current ▲ 198 10 11 current NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	191 21780 history1 ▲ 114 2 5 history1 NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	1352 140 25860



OIL ANALYSIS REPORT



method limit/base current history1 history2 82.5 84.1 88.6 ASTM D445 110 limit/base method current history1 history2 no image no image no image no image no image no image

Mar14/23

Mar14/23

Mar14/23

Aar28/24

Aar28/74

Mar28/24

NW WHITE & CO - COLUMBIA DIVISION : WearCheck USA - 501 Madison Ave., Cary, NC 27513 100 INDEPENDENCE BLVD Received : 08 Apr 2024 Lab Number : 06141769 Tested : 09 Apr 2024 COLUMBIA, SC Unique Number : 10966577 Diagnosed : 10 Apr 2024 - Don Baldridge US 29210 Test Package : FLEET Contact: GEORGE EDWARDS Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. gedwards@nwwhite.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Report Id: NWWCOL [WUSCAR] 06141769 (Generated: 04/10/2024 19:55:21) Rev: 1

Submitted By: Paul Riddick Page 2 of 2