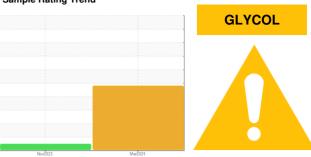


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

1019 BF 204

Diesel Engine

CHEVRON DELO 400 SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Wear

Moderate concentration of visible metal present. All component wear rates are normal.

Contamination

There is no indication of any contamination in the

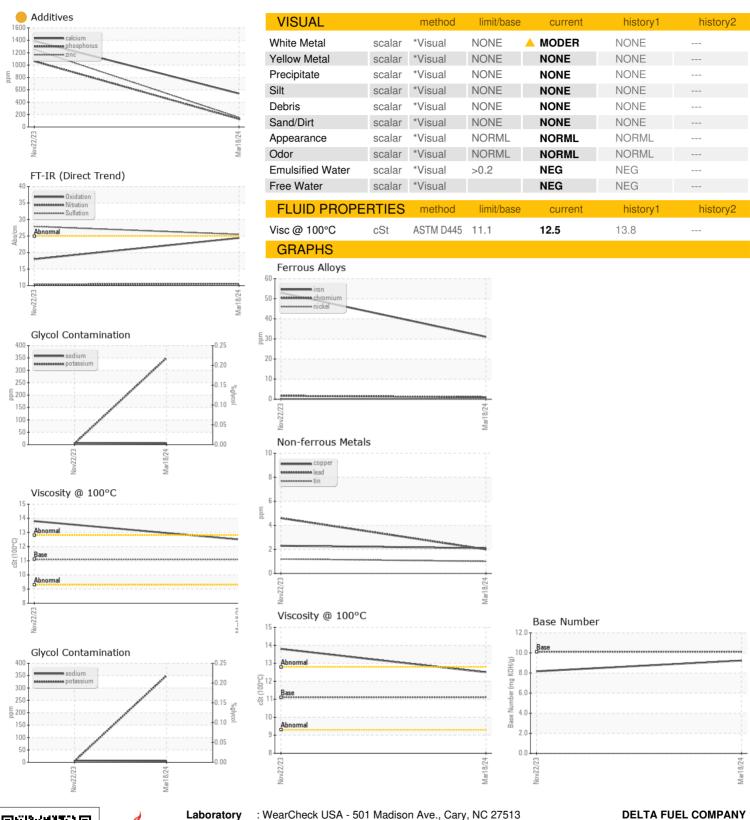
Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil.

			Nov2023	Mar2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number	.,, .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Client Info		PCA0101413	PCA0101397	
Sample Date		Client Info		18 Mar 2024	22 Nov 2023	
Machine Age	mls	Client Info		242268	233265	
Oil Age	mls	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				ABNORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	
Water		WC Method		NEG	NEG	
WEAR METALS	9	method	limit/base	current	history1	history2
						HIStory
Iron	ppm	ASTM D5185m	>90	31	53	
Chromium	ppm	ASTM D5185m		1	2	
Nickel	ppm	ASTM D5185m	>2	<1	<1	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m		13	2	
Lead	ppm	ASTM D5185m	>40	2	5	
Copper	ppm	ASTM D5185m		2	2	
Tin	ppm	ASTM D5185m	>15	1	1	
Vanadium	ppm	ASTM D5185m		<1 0	0	
Cadmium	ppm	ASTM D5185m		U	U	
ADDITIVEC						
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	method ASTM D5185m	limit/base	current 314	history1 251	history2
	ppm ppm		limit/base			history2
Boron		ASTM D5185m	limit/base	314 5 976	251	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	314 5 976 <1	251 0 96 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	314 5 976 <1 132	251 0 96 <1 366	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		314 5 976 <1 132 539	251 0 96 <1 366 1389	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1260	314 5 976 <1 132 539 129	251 0 96 <1 366 1389 1063	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		314 5 976 <1 132 539 129 154	251 0 96 <1 366 1389 1063 1252	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1260 1400	314 5 976 <1 132 539 129 154 2427	251 0 96 <1 366 1389 1063	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1260	314 5 976 <1 132 539 129 154 2427	251 0 96 <1 366 1389 1063 1252	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1260 1400 limit/base	314 5 976 <1 132 539 129 154 2427	251 0 96 <1 366 1389 1063 1252 3135	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1260 1400 limit/base	314 5 976 <1 132 539 129 154 2427 current	251 0 96 <1 366 1389 1063 1252 3135 history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1260 1400 limit/base	314 5 976 <1 132 539 129 154 2427 current 13 5 350	251 0 96 <1 366 1389 1063 1252 3135 history1 8 7	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1260 1400 limit/base >25	314 5 976 <1 132 539 129 154 2427 current 13 5	251 0 96 <1 366 1389 1063 1252 3135 history1 8 7	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1260 1400 limit/base >25	314 5 976 <1 132 539 129 154 2427 current 13 5 350	251 0 96 <1 366 1389 1063 1252 3135 history1 8 7	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1260 1400 limit/base >25 >20	314 5 976 <1 132 539 129 154 2427 current 13 5 350 NEG	251 0 96 <1 366 1389 1063 1252 3135 history1 8 7 4 NEG	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D2982	1260 1400 limit/base >25 >20 limit/base >6	314 5 976 <1 132 539 129 154 2427 current 13 5 350 NEG current	251 0 96 <1 366 1389 1063 1252 3135 history1 8 7 4 NEG	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844	1260 1400 limit/base >25 >20 limit/base >6 >20	314 5 976 <1 132 539 129 154 2427 current 13 5 350 NEG current 2.5	251 0 96 <1 366 1389 1063 1252 3135 history1 8 7 4 NEG history1 3.4	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	1260 1400 limit/base >25 >20 limit/base >6 >20	314 5 976 <1 132 539 129 154 2427 current 13 5 350 NEG current 2.5 10.5	251 0 96 <1 366 1389 1063 1252 3135 history1 8 7 4 NEG history1 3.4 10.3	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D7415 method	1260 1400 limit/base >25 >20 limit/base >6 >20 >30	314 5 976 <1 132 539 129 154 2427 current 13 5 350 NEG current 2.5 10.5 25.5	251 0 96 <1 366 1389 1063 1252 3135 history1 8 7 4 NEG history1 3.4 10.3 27.9	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	1260 1400 limit/base >25 >20 limit/base >6 >20 >30 limit/base	314 5 976 <1 132 539 129 154 2427 current 13 5 350 NEG current 2.5 10.5 25.5 current	251 0 96 <1 366 1389 1063 1252 3135 history1 8 7 4 NEG history1 3.4 10.3 27.9 history1	history2 history2



OIL ANALYSIS REPORT







Certificate 12367

Laboratory Sample No.

: PCA0101413 Lab Number : 06189474 Unique Number : 11046226

Tested Test Package : IND 2 (Additional Tests: Glycol)

Received : 23 May 2024 : 03 Jun 2024 Diagnosed

: 03 Jun 2024 - Jonathan Hester

To discuss this sample report, contact Customer Service at 1-800-237-1369. st - Denotes test methods that are outside of the ISO 17025 scope of accreditation. 1000 WELLS ISLAND RD SHREVEPORT, LA US 71107 Contact: BRAD GORDON bgordon@deltafuel.com T: (318)780-3921

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: BRAD GORDON - DELSHR