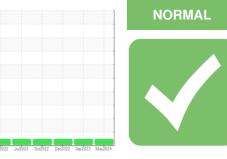


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 2126906 Front Differential Fluid GEAR OIL SAE 75W90 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

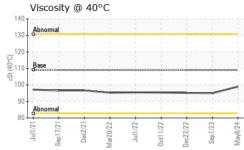
The condition of the oil is acceptable for the time in service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0116031	PCA0105552	PCA0085291
Sample Date		Client Info		08 May 2024	01 Sep 2023	22 Dec 2022
Machine Age	mls	Client Info		272774	227516	157436
Oil Age	mls	Client Info		0	227516	157436
Oil Changed		Client Info		Not Changd	N/A	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>.2	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	281	263	188
Chromium	ppm	ASTM D5185m	>10	2	2	2
Nickel	ppm	ASTM D5185m	>10	5	5	6
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	2	3
Lead	ppm	ASTM D5185m	>25	8	8	0
Copper	ppm	ASTM D5185m	>100	47	46	1
Tin	ppm	ASTM D5185m	>10	2	2	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron		ACTM DE10Em	400		101	104
BOIDII	ppm	ASTM D5185m	400	185	191	194
Boron Barium	ppm ppm	ASTM D5185m	200	185 2	191 2	0
Barium	ppm	ASTM D5185m	200	2	2	0
Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	200	2 <1	2 <1	0
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	200 12	2 <1 18	2 <1 18	0 1 12
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 12 12	2 <1 18 7	2 <1 18 6	0 1 12 7
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 12 12 12 150	2 <1 18 7 25	2 <1 18 6 39	0 1 12 7 24
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 12 12 12 150 1650	2 <1 18 7 25 1234	2 <1 18 6 39 1209	0 1 12 7 24 1138
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	200 12 12 12 150 1650 125	2 <1 18 7 25 1234 32	2 <1 18 6 39 1209 31	0 1 12 7 24 1138 31
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	200 12 12 150 1650 125 22500 limit/base	2 <1 18 7 25 1234 32 26649	2 <1 18 6 39 1209 31 25574	0 1 12 7 24 1138 31 21122
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 12 12 150 1650 125 22500 limit/base	2 <1 18 7 25 1234 32 26649 current	2 <1 18 6 39 1209 31 25574 history1	0 1 12 7 24 1138 31 21122 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	200 12 12 150 1650 125 22500 Imit/base >75	2 <1 18 7 25 1234 32 26649 <u>current</u> 54	2 <1 18 6 39 1209 31 25574 history1 49	0 1 12 7 24 1138 31 21122 history2 32
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	200 12 12 150 1650 125 22500 limit/base >75	2 <1 18 7 25 1234 32 26649 <u>current</u> 54 10	2 <1 18 6 39 1209 31 25574 history1 49 10	0 1 12 7 24 1138 31 21122 history2 32 8
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	200 12 12 150 1650 125 22500 limit/base >75 >20	2 <1 18 7 25 1234 32 26649 <u>current</u> 54 10 4	2 <1 18 6 39 1209 31 25574 history1 49 10 4	0 1 12 7 24 1138 31 21122 history2 32 8 3
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	200 12 12 150 1650 125 22500 limit/base >75 >20 limit/base	2 <1 18 7 25 1234 32 26649 current	2 <1 18 6 39 1209 31 25574 history1 49 10 4 history1	0 1 12 7 24 1138 31 21122 history2 32 8 3 3 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	200 12 12 150 1650 125 22500 <i>limit/base</i> >75 >20 <i>limit/base</i> NONE	2 <1 18 7 25 1234 32 26649 current 54 10 4 current NONE	2 <1 18 6 39 1209 31 25574 history1 49 10 4 4 history1 NONE	0 1 12 7 24 1138 31 21122 history2 32 8 3 3 history2 NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m Yisual	200 12 12 150 1650 125 22500 <i>limit/base</i> >75 >20 <i>limit/base</i> NONE NONE	2 <1 18 7 25 1234 32 26649 <u>current</u> 54 10 4 <u>current</u> NONE NONE	2 <1 18 6 39 1209 31 25574 history1 49 10 4 4 NONE NONE NONE	0 1 12 7 24 1138 31 21122 history2 32 8 3 3 history2 NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m Yisual	200 200 12 12 150 1650 125 22500 imit/base >75 >20 imit/base NONE NONE NONE NONE	2 <1 18 7 25 1234 32 26649 current 54 10 4 current NONE NONE NONE NONE	2 <1 18 6 39 1209 31 25574 history1 49 10 4 4 10 4 history1 NONE NONE NONE NONE	0 1 12 7 24 1138 31 21122 history2 32 8 3 3 history2 NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m *Visual *Visual *Visual	200 200 12 12 150 1650 125 22500 limit/base >75 >20 limit/base NONE NONE NONE NONE NONE	2 <1 18 7 25 1234 32 26649 <u>current</u> 54 10 4 <u>current</u> NONE NONE NONE NONE NONE	2 <1 18 6 39 1209 31 25574 history1 49 10 4 4 10 4 VONE NONE NONE NONE NONE NONE	0 1 12 7 24 1138 31 21122 history2 32 8 3 3 history2 NONE NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	200 12 12 12 150 1650 125 22500 imit/base >75 >20 imit/base NONE NONE NONE NONE NONE NONE	2 <1 18 7 25 1234 32 26649 <i>current</i> 54 10 4 <i>current</i> NONE NONE NONE NONE NONE NONE	2 <1 18 6 39 1209 31 25574 history1 49 10 4 49 10 4 history1 NONE NONE NONE NONE NONE LIGHT	0 1 12 7 24 1138 31 21122 history2 32 8 3 history2 NONE NONE NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	200 200 12 12 150 1650 125 22500 imit/base >75 >20 imit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE	2 <1 18 7 25 1234 32 26649 <i>current</i> 54 10 4 <i>current</i> NONE NONE NONE NONE NONE NONE NONE NON	2 <1 18 6 39 1209 31 25574 history1 49 10 4 49 10 4 VONE NONE NONE NONE NONE NONE LIGHT NONE	0 1 12 7 24 1138 31 21122 history2 32 8 3 NONE NONE NONE NONE NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	200 12 12 150 1650 125 22500 imit/base >75 220 imit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	2 <1 18 7 25 1234 32 26649 <i>current</i> 54 10 4 54 10 4 <i>current</i> NONE NONE NONE NONE NONE NONE NONE NON	2 <1 18 6 39 1209 31 25574 history1 49 10 4 49 10 4 VONE NONE NONE NONE NONE LIGHT NONE LIGHT NONE NONE	0 1 12 7 24 1138 31 21122 history2 32 8 3 10 10 10 10 10 10 10 10 10 10
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	200 200 12 12 150 150 125 22500 imit/base >75 imit/base NONE	2 <1 18 7 25 1234 32 26649 current 54 10 4 current NONE NONE NONE NONE NONE NONE NONE NON	2 <1 18 6 39 1209 31 25574 history1 49 10 4 NONE NONE NONE NONE NONE LIGHT NONE NORML NORML NEG NEG	0 1 12 7 24 1138 31 21122 history2 32 8 3 3 history2 NONE

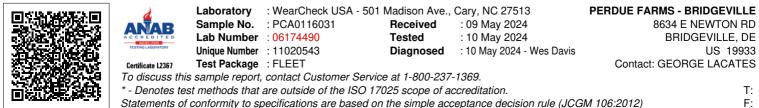
Report Id: PERBRIDE [WUSCAR] 06174490 (Generated: 05/16/2024 12:52:46) Rev: 1



OIL ANALYSIS REPORT



FLUID PROP	ERTIES	method	limit/base	current	history1	histor
Visc @ 40°C	cSt	ASTM D445	109	99.0	95.0	95.2
SAMPLE IMA	GES	method	limit/base	current	history1	histor
Color				no image	no image	no imag
Bottom				no image	no image	no imag
GRAPHS						
Non-ferrous Met	Jult/22.	0ct11/22 0ct	May824 May824 May824 May824 May824			
Ju Sepi	Ju	Oct1 Dec2 Sep	May			
VearCheck USA - 5 PCA0116031	501 Madis Rece	on Ave., Cary eived : 09	, NC 27513 May 2024	PEF	RDUE FARMS - 8634 E	BRIDGEV



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