

# **OIL ANALYSIS REPORT**

Sample Rating Trend

VISCOSITY

## Area WQ Machine Id DODGE 00020

Component Gearbox Fluid GEAR OIL (PAO) ISO 220 (1 GAL)

#### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

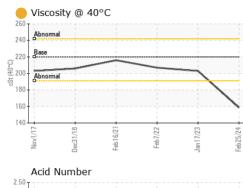
### Fluid Condition

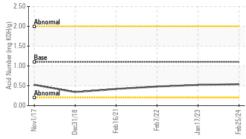
The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.

		Nov2017	Dec2018 Feb2021	Feb2022 Jan2023	Feb2024	
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0721337	WC0570400	WC0524331
Sample Date		Client Info		25 Feb 2024	17 Jan 2023	07 Feb 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	NORMAL	NORMAL
CONTAMINATION	۷	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	61	68	72
Chromium	ppm	ASTM D5185m	>15	<1	<1	<1
Nickel	ppm	ASTM D5185m	>15	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	2
Aluminum	ppm	ASTM D5185m	>25	4	0	2
Lead	ppm	ASTM D5185m	>100	<1	0	1
Copper	ppm	ASTM D5185m	>200	<1	0	3
Tin	ppm	ASTM D5185m	>25	0	0	<1
Antimony	ppm	ASTM D5185m	>5			0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	25	11	5	17
Barium	ppm	ASTM D5185m	12	0	0	0
Molybdenum	ppm	ASTM D5185m	5	<1	<1	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	25	2	1	2
Calcium	ppm	ASTM D5185m	25	11	6	12
Phosphorus	ppm	ASTM D5185m	375	206	153	179
Zinc	ppm	ASTM D5185m	25	0	4	3
Sulfur	ppm	ASTM D5185m	4900	9763	14954	13289
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	11	3	10
Sodium	ppm	ASTM D5185m		2	0	<1
Potassium	ppm	ASTM D5185m	>20	3	<1	0
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.10	0.54	0.52	0.48



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		White Me Yellow M				Visual Visual	NONE NONE		NONE NONE	MOD		MODE NONE	
	I	Precipita	te	SC	alar *	Visual	NONE		NONE	NON	E	NONE	
· · · · ·	:	Silt		SC	alar *	Visual	NONE		NONE	NON	E	NONE	
	I	Debris		SC	alar *	Visual	NONE		NONE	LIGH	Т	NONE	
	:	Sand/Dir	t	SC	alar *	Visual	NONE		NONE	NON	E	NONE	
Feb25/24		Appeara	nce	SC	alar *'	Visual	NORML		NORML	NOR	ML	NORM	1L
Feb	(	Odor		SC	alar *	Visual	NORML		NORML	NOR	ML	NORM	1L
	I	Emulsifie	d Water	SC	alar *	Visual	>0.2		NEG	NEG		NEG	
		Free Wat	ter	SC	alar *	Visual			NEG	NEG		NEG	
		FLUID	PROPE	ERTIES		method	limit/bas	е	current	hist	ory1	histo	ry2
	,	Visc @ 40°C		cS	cSt ASTM D445 2		220	220 <b>158.8</b>		203		207	
		SAMPI	_E IMA(	GES		method	limit/bas	e	current	hist	ory1	histo	ry2
Feb25/24	(	Color							no image	no im	lage	no ima	ge
		Bottom							no image	no im	aae	no ima	ae
													0 -
		GRAP											
	600	Iron (p	pm)					300 T	Lead (ppm) Severe				
	∈ <sup>400</sup>	Severe					E	200					
	톱 <sup>400</sup> 200	Abnormal					đ	100	Abnormal O				
	0		80	21-	22	23	24	0	17	21-	22 -	23 +	24
		Nov1/17	Jec31/18	Feb16/21	Feb7/22	Jan 17/23	Feb25/24		Nov1/17 Dec31/18	Feb16/21	Feb7/22	Jan 17/23	Feh 25/24
		Alumin	um (ppi			- T	LE.		Chromium (			ň	ŭ
	150	)т :						<sup>60</sup> T	Severe				
	e 100	) - Severe						는 <sup>40</sup>		<del>-</del> 			
	50	Abnormal				1			Abnormal				
	0		18	/21-	22	23	24	01	18	21-	22	23	74
		Nov1/1	Dec31/18	Feb16/21	Feb7/22	Jan 17/23	Feb25/24		Nov1/17 Dec31/18	Feb16/21	Feb 7/22	Jan 17/23	Feh 25/24
						~	LL_		Silicon (ppm			7	
		Conner							Sincon (ppin	1			
	600	T	(ppm)					<sup>150</sup> T		)			
	400	Severe				1		<sup>150</sup> T	Severe	)			
	튼 <sup>400</sup> 200	Abnormal						150 100 50		)			
	<sub>트</sub> 400	Abnormal	(ppm)	j21	/22	/23	đ	150 100 50 0	Abnormal		/22	/23	74
	튼 <sup>400</sup> 200	Abnormal	(ppm)	Feb 16/21+	Feb7/22	Jan 17/23	đ	150 100 50 0	Abnormal	Feb 16/21	Feb7/22	Jan 17/23	eb25/24
	튼 <sup>400</sup> 200	Severe Abnormal	(ppm)		Feb7/22	Jan 17/23	Feb25/24	150 - 100 - 50 - 0 -	Aprormal 81/18	Feb 16/21	Feb7/22	Jan 17/23	Feb 25/24
	E 400 200 0	Abnormal LI/Inon Viscosit	(ppm)		Feb7/22	Jan 17/23	Feb25/24	150 - 100 - 50 - 0 -	Abnormal Abnormal 80//Ecal Acid Number	Feb 16/21	- Feb7/22		Feb25/24
	E 400 200 0	Abnormal LI/Inon Viscosit	(ppm)		Feb7/22	Jan17/23	Feb25/24	150 - 100 - 50 - 0 -	Abnormal Abnormal Acid Number Abnormal	Feb 16/21	Feb1/22	Jan 17/23	Feh25/24
	u 400 200 0 300 (0.0⊕) 200	Severe demonstance	(ppm)		Feb7/22	Jan17/23	Feb25/24	150 - 100 - 50 - 0 -	Abnormal Abnormal 80//Ecal Acid Number	Feb 16/21	Feb7/22	Jan17/23	Feb25/24
	E 400 200 0	Severe denormal denormal denormal denormal denormal denormal denormal denormal	- (ppm) 81/1599 ty @ 40	°C			Aumber (mg KOH/g) ppm	150 100 50 0 3.00 2.00 1.00 0.00	Abnormal Abnormal Acid Number Abnormal Base Abnormal	Feb 16/21			
	u 400 200 0 300 (0.0⊕) 200	Severe demonstance	(ppm)		Feb1/22 + Feb1/22 +	Jan 17/23 Lan 17/23	Feb25/24	150 100 50 0 3.00 2.00 1.00 0.00	Abnormal Abnormal Acid Number Abnormal	Feb 16/21	Feb7/22 Feb7/22	Jan 17/23 Jan 17/23	
ackage	4000 3000 (D-0+) 2000 1000 : W : W : W : O60 : 100 : M	Viscosil Abnomal Viscosil Abnomal Abno	- (ppm) 	°C +(12/9) (rg-j 501 Ma F T C	adison / Receive rested Diagnos	EZ/L1ump Ave., Cary ad : 26 : 01	(BHO) Buy Jacobian (BHO) Buy Jac	3.00 2.00 3.00 3.00 3.00 3.00 3.00 3.00	Abnormal Abnormal Acid Number Acid Number Abnormal Base Abnormal Base Abnormal Base Abnormal	r Espilo21 S.M Con	<sup>22/رمه</sup> <b>۱. LORU</b> 221 M ע tact: PAI		<ul> <li>K ST</li> <li>E, MA</li> <li>2081</li> <li>MAN</li> </ul>



Contact/Location: PAUL BECKMAN - SMLWALNC