

# **OIL ANALYSIS REPORT**

Sample Rating Trend



# Area DICK LAVY DICK LAVY 4948

Front Differential Fluid {not provided} (--- GAL)

## DIAGNOSIS

#### A 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 a high amount of silt (particulates < 14 microns in size) present in the fluid.

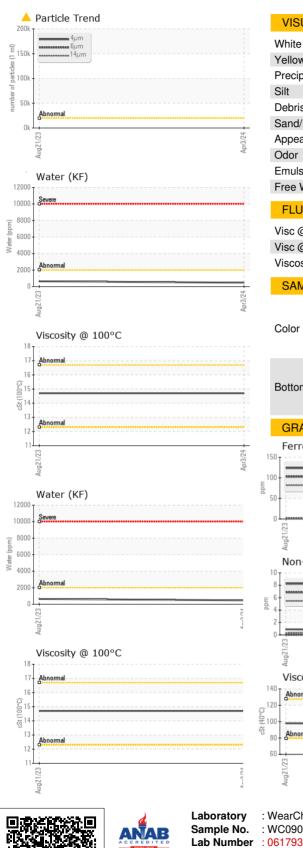
## Fluid Condition

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0900738	WC0853902	
Sample Date		Client Info		03 Apr 2024	21 Aug 2023	
Machine Age	mls	Client Info		59456	17343	
Oil Age	mls	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				ABNORMAL	ABNORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	119	102	
Chromium	ppm	ASTM D5185m	>10	<1	1	
Nickel	ppm	ASTM D5185m	>10	<1	0	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m		<1	0	
Aluminum	ppm	ASTM D5185m	>25	1	<1	
Lead	ppm	ASTM D5185m	>25	<1	0	
Copper	ppm	ASTM D5185m		<1	<1	
Tin	ppm	ASTM D5185m		<1	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		<1	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		170	164	
Barium	ppm	ASTM D5185m		2	<1	
Molybdenum	ppm	ASTM D5185m		0	0	
Manganese	ppm	ASTM D5185m		12	13	
Magnesium	ppm	ASTM D5185m		6 14	<1 14	
Calcium	ppm	ASTM D5185m				
Phosphorus	ppm	ASTM D5185m		1144	1135	
Zinc	ppm	ASTM D5185m		14	5	
Sulfur	ppm	ASTM D5185m		29901	24269	
CONTAMINANTS	S	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	18	20	
Sodium	ppm	ASTM D5185m		4	4	
Potassium	ppm	ASTM D5185m	>20	3	2	
Water	%	ASTM D6304	>.2	0.046	0.063	
ppm Water	ppm	ASTM D6304	>2000	469	637.7	
FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	<b>A</b> 185347		
Particles >6µm		ASTM D7647	>5000	<u> </u>		
Particles >14µm		ASTM D7647	>640	169		
Particles >21µm		ASTM D7647	>160	20		
Particles >38µm		ASTM D7647	>40	1		
Particles >71µm		ASTM D7647	>10	0		
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>4</b> 25/22/15		
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		3.32	3.27	
	ing iton/g	AUTHI DUU45		5.52	0.27	



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VISUAL		mathad	limit/base	ourroat	biotomut	biotory
		method		current	history1	history2
				-		
			-			
				-		
			>.2			
Free Water	scalar	*Visual		NEG	NEG	
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		97.4	98.0	
Visc @ 100°C	cSt	ASTM D445		14.7	14.7	
Viscosity Index (VI)	Scale	ASTM D2270		157	156	
			limit/base	current		history2
		mealou	-infit/base	current	Thistory P	mstory2
Color						no image
Bottom						no image
GRAPHS						
Ferrous Alloys				Particle Cour	nt	
150iron			491,520			T <sup>26</sup>
100 - chromium			122,880			-24
B 50 -			30,720	Abnormal		-22
-			8/24 [m])			
Aug21			Judy 1,920		•	-18
Non-ferrous Meta	s		·달 480		1	-20 -18 -16 -16
<sup>10</sup>			d jo 120			14
8 copper			a 120	Ĩ		Ť <sup>14</sup>
a 4			≅ 30	0-		-12
2			8	3-		-10
			24		1	
Ig21/2			Apr3//			
			0		14µ 21µ	38µ 71µ
140			G.	Acid Number	r	
Abnormal			HOX 0	I <u>— — — — — — — — — — — — — — — — — — —</u>		
(20) 100			B 3.0			
Abnormal						
			21.0			
80 <b>-</b>						
Aug21/23			Apr3/24	Aug21/23		
	Visc @ 40°C Visc @ 100°C Viscosity Index (VI) SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys	Yellow Metal  scalar    Precipitate  scalar    Silt  scalar    Debris  scalar    Sand/Dirt  scalar    Appearance  scalar    Odor  scalar    Emulsified Water  scalar    Free Water  scalar    Free Water  scalar    Free Water  scalar    Free Water  scalar    Visc @ 40°C  cSt    Visc @ 100°C  cSt    Viscosity Index (VI)  Scale    SAMPLE IMAGES  Color    Bottom  GRAPHS    Ferrous Alloys  Storm    South Storm  Storm    South	Yellow Metal  scalar  *Visual    Precipitate  scalar  *Visual    Silt  scalar  *Visual    Debris  scalar  *Visual    Sand/Dirt  scalar  *Visual    Appearance  scalar  *Visual    Odor  scalar  *Visual    Emulsified Water  scalar  *Visual    Free Water  scalar  *Visual    Free Water  scalar  *Visual    Visc @ 40°C  cSt  ASTM D445    Visc @ 100°C  cSt  ASTM D445    Visc @ 100°C  cSt  ASTM D445    Viscosity Index (VI)  Scale  ASTM D2270    SAMPLE IMAGES  method    Color  GRAPHS    Ferrous Alloys	Yellow Metal  scalar  *Visual  NONE    Precipitate  scalar  *Visual  NONE    Silt  scalar  *Visual  NONE    Silt  scalar  *Visual  NONE    Sand/Dirt  scalar  *Visual  NONE    Appearance  scalar  *Visual  NORML    Odor  scalar  *Visual  NORML    Odor  scalar  *Visual  NORML    Codor  scalar  *Visual  NORML    Emulsified Water  scalar  *Visual  >.2    Free Water  scalar  *Visual  >.2    Feree Water  scalar  *Visual  >.2    Visc @ 100°C  cSt  ASTM D445  S    Viscosity Index (VI)  Scale  ASTM D2270  SAMPLE IMAGES    Color  Imit/base  Imit/base  Imit/base    Color  Imit/base  Imit/base  Imit/base    Viscosity @ A0°C  Imit/base  Imit/base  Imit/base    Imit for the optime o	Yellow Metal  scalar  *Visual  NONE  NONE    Precipitate  scalar  *Visual  NONE  NONE    Sitt  scalar  *Visual  NONE  MODER    Debris  scalar  *Visual  NONE  NONE    Appearance  scalar  *Visual  NOR  NOR    Appearance  scalar  *Visual  NOR  NOR    Codor  scalar  *Visual  NOR  NOR    Emulsified Water  scalar  *Visual  NORML  NORML    Codor  scalar  *Visual  NOR  NORML  NORML    Emulsified Water  scalar  *Visual  >.2  NEG    FLUID PROPERTIES  method  limit/base  current    Visc @ 40°C  cSt  ASTM D445  14.7    Visc @ 100°C  cSt  ASTM D445  14.7    Visc @ 100°C  cSt  ASTM D2270  157    SAMPLE IMAGES  method  limit/base  current    0a  coope  coope  coope  coope    0a	Yellow Metal  scalar  *Visual  NONE  NONE  NONE  NONE    Precipitate  scalar  *Visual  NONE  NONE  NONE  NONE    Silt  scalar  *Visual  NONE  NONE  NONE  NONE    Debris  scalar  *Visual  NONE  NONE  NONE  MODER    Sand/Dirit  scalar  *Visual  NOR  NONE  NONE  NORE    Appearance  scalar  *Visual  NORML  NORML  NORML  NORML    Cdor  scalar  *Visual  NORML  NORML  NORML  NORML    Emulsified Water  scalar  *Visual  NORML  NORML  NORML  NORML    Visc @ 40°C  cSt  ASTM D445  97.4  98.0  Visc @ 100°C  Stale  ASTM D445  14.7  14.7    Visc @ 100°C  cSt  ASTM D445  157  156  SAMPLE IMAGES  method  Imit/base  current  history1    Gold  off  off  off  off  off  off  off  0

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)

Test Package : MOB 2 ( Additional Tests: KF, KV100, PrtCount, VI )

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Certificate L2367

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