

OIL ANALYSIS REPORT

Sample Rating Trend





Area KEMP QUARRIES / RIVER VALLEY BACKBONE WL147 Component Rear Differential

TDTO FLUID SAE 50 (--- GAL)

DIAGNOSIS

Recommendation

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.

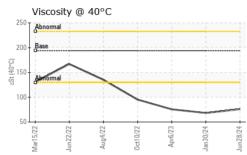
Fluid Condition

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

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0108589	PCA0069949	PCA0085827
Sample Date		Client Info		28 Jun 2024	30 Jan 2024	06 Apr 2023
Machine Age	hrs	Client Info		29627	29627	28770
Oil Age	hrs	Client Info		301	1200	345
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	ATTENTION
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	7	10	31
Chromium	ppm	ASTM D5185m	>3	0	<1	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	<1	2	<1
Lead	ppm	ASTM D5185m	>13	0	0	0
Copper	ppm	ASTM D5185m	>103	0	<1	<1
Tin	ppm	ASTM D5185m	>5	0	0	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	37	<1	<1	0
Barium	ppm	ASTM D5185m	7	0	5	0
Molybdenum	ppm	ASTM D5185m	5	3	4	2
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	40	44	80	17
Calcium	ppm	ASTM D5185m	2650	657	194	540
Phosphorus	ppm	ASTM D5185m	1050	466	399	430
Zinc	ppm	ASTM D5185m	1075	571	489	556
Sulfur	ppm	ASTM D5185m	5750	1679	1149	2088
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>100	3	<1	4
Sodium	ppm	ASTM D5185m		1	0	0
Potassium	ppm	ASTM D5185m	>20	0	<1	0
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
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	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
4:07:38) Rev: 1						Submitted By:



OIL ANALYSIS REPORT



FLUID P	ROPERTIE	S metho	d limit/t	oase	current		history1		history	/2
Visc @ 40°C	cSt	ASTM D	445 194	7	5.9	6	8.1	7	5.6	
SAMPLE	IMAGES	metho	d limit/k	oase	current		history1		history	/2
Color				n	o image	r	no image	r	no image	0
Bottom				n	o image	r	no image	r	no image	е
GRAPHS	8									
Iron (ppm))			Lea 30 T	id (ppm))				
800 - Severe				20	re			*****		
E 600 Abnormal	· · · · · · · · · · · · · · · · · · ·				ormal					
400				10-						
	/22	/23	/24		//	/22	/22	/23	/24	
		Apr6	Jan30				0ct10	Apr6	Jan30	
60 Severe	(ppm)			7 _T		(ppm)				
50				6 - 0						
E 30 - Abnormal					ormal					
20				2						
5/22	4/22	6/23	0/24	5/22	2/22	4/22	0/22	6/23	0/24	
	_	Apr	Jan3				0ct1	Apr	Jan 3	
200 Severe	500			200 T		n)		1		
150				150-						
튭 100 - <mark>Abnormal</mark>			-	튭 100 - Abn	ormal					
50				50-	_					
5/22	4/22	6/23	8/24	5/22	2/22 -	4/22	0/22	6/23	0/24	
		Apı	Jan3			Aug	0ct1	Apı	Jan3	
250 Abnormal	J 40°C			³⁵⁰⁰ T						
200 - Base				2500						
0000000000000000000000000000000000000				E 2000 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 15000 - 15000 - 15000 - 15000 - 1500 - 1500 - 1500 - 1500 - 1500 - 150						
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50 - 22	22		24	0	22	22	22	23 -	-	
Mar15/22 Jun22/22	Aug4/22 0ct10/22	Apr6/23	Jan30/24 Jun28/24	Mar15/22	Jun22/22	Aug4/22	0ct10/22	Apr6/23	Jan30/24	
: WearCheck U : PCA0108589 r : 06230943 r : 11114436 e : MOB 1	Re Te	ison Ave., (ceived sted agnosed	Cary, NC 27 : 08 Jul 202 : 10 Jul 202 : 10 Jul 2024	24 24	-	Quarri	es - River	5600 S Hunt	- Backb S Hwy ington, US 72 Conta	25 , A 94
	Visc @ 40°C SAMPLE Color Bottom GRAPHS Iron (ppm) 400 400 400 400 400 400 400 400 400 40	Visc @ 40°C cSt SAMPLE IMAGES Color Bottom GRAPHS Iron (ppm)	Visc @ 40°C cSt ASTM DA SAMPLE IMAGES metho Color Bottom GRAPHS Iron (ppm) 400 400 400 400 400 400 400 40	Visc @ 40°C cSt ASTM D445 194 SAMPLE IMAGES method limit/ Color Bottom GRAPHS Iron (ppm) 4 4 0 0 0 0 0 0 0 0 0 0 0 0 0	Visc @ 40°C cSt ASTM D445 194 75 SAMPLE IMAGES nethod imit/base Color n Bottom n GRAPHS Tron (ppm) 4 Juminum (ppm) 6 Juminum (ppm) 6 Juminum (ppm) 6 Juminum (ppm) 6 Juminum (ppm) 7 J	Visc @ 40°C cSt ASTM D445 194 75.9 SAMPLE IMAGES method imit/base current Color no image Bottom no image GRAPHS Tron (ppm) 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Visc @ 40°C cst ASTM D445 194 75.9 6 SAMPLE IMAGES method imit/base current Color no image r Bottom no image r GRAPHS Tron (ppm) 4 Junious (ppm) 4 Junio	Visc @ 40°C cSt ASTM D445 194 75.9 68.1 SAMPLE IMAGES method imit/base current history1 Color no image no image Bottom no image no image GRAPHS Tron (ppm) 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5	Visc @ 40°C cst ASTM D445 194 75.9 68.1 7 SAMPLE IMAGES method limit/base current history1 Color no image no image no no image no image no company no image no company no	Visc @ 40°C cSt ASTM D445 194 75.9 68.1 75.6 SAMPLE IMAGES method imit/base current history1 history Color no image no image no image no image no image no image GRAPHS Tron (ppm) Aluminum (ppm) Aluminum (ppm) Copper (ppm) Copper

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

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