

# **OIL ANALYSIS REPORT**

#### Area KEMP QUARRIES / HULBERT Machine Id OHT049

Component Hydraulic System

MOBIL DELVAC 1300 SUPER15W40 (--- 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 fluid.

## Fluid Condition

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



Sample Rating Trend

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0109164	PCA0086124	PCA0061811
Sample Date		Client Info		27 Jan 2024	23 Sep 2023	09 Dec 2022
Machine Age	hrs	Client Info		9318	8820	7760
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	14	21	<b>4</b> 6
Chromium	ppm	ASTM D5185m	>10	<1	0	1
Nickel	ppm	ASTM D5185m	>10	0	2	4
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	2	2
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	4	8	5
Tin	ppm	ASTM D5185m	>10	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	0	1	<1	5
Barium	ppm	ASTM D5185m	0	5	0	0
Molybdenum	ppm	ASTM D5185m	0	2	6	20
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	0	32	94	303
Calcium	ppm	ASTM D5185m		123	200	507
Phosphorus	ppm	ASTM D5185m		365	431	572
Zinc	ppm	ASTM D5185m		481	510	712
Sulfur	ppm	ASTM D5185m		934	1080	1801
CONTAMINAN	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	5	10	18
Sodium	ppm	ASTM D5185m		0	<1	<1
Potassium	ppm	ASTM D5185m	>20	1	0	1
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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	LIGHT	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	>0.1	NEG	NEG	NEG

NEG

NEG

Free Water

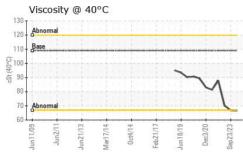
scalar \*Visual

NEG

NORMAL



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300 255 200 Weld 15 100 255 200 200 255 200 200 255 200 255 200 200	current   no image   no image   no image   Abnomal   Chromium (pp   Severe   Abnomal   Silicon (ppm)   Severe   Spevere   Abnomal   Silicon (ppm)   Severe	Mistor no imag no imag no imag	ie		age
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300 255 200 Weld 15 100 255 200 200 255 200 200 255 200 255 200 200	Abnormal	Mar17/14 Oct4/14	Feb21/17	Dec3/20	San 73/33
300 255 200 Weld 15 100 255 200 200 255 200 200 255 200 255 200 200	Severe Abnomal EU/IZunf Chromium (pp Severe Abnomal EU/IZunf EU/IZunf EU/IZunf Selicon (ppm)	≥ pm)			
300 255 200 Weld 15 100 255 200 200 255 200 200 255 200 255 200 200	Severe Abnomal EU/IZunf Chromium (pp Severe Abnomal EU/IZunf EU/IZunf EU/IZunf Selicon (ppm)	≥ pm)			
20 20 4 20 4 20 4 10 4 5 0 0 0 0 0 0 0 0 0 0 0 0 0	Abnormal Abnormal Chromium (pr Chromium (pr Silicon (ppm)	≥ pm)			
Bec3202 Bec	Approximation (pp	≥ pm)			
Sep23120 Contraction of the second s	Approximation (pp	≥ pm)			
Dec3/20 Sep23/23 Sep2	Abnormal Severe Abnormal IV/Zunf Silicon (ppm)	≥ pm)			
S 300 25 4 20 4 5 4 5 4 5 60 10 5 60 10 10 10 10 10 10 10 10 10 1	Abnormal Severe Abnormal IV/Zunf Silicon (ppm)	≥ pm)			
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25- 20- 10- 00 00 00 00 00 00 00 00 00 00 00 00 0	Abnormal EU/Izunf Silicon (ppm)	Mar17/14	Feb21/17	Dec3/20	Can 73/73
Bep23/23 Sep	11/Junn (ppm)	Mar17/14	Feb21/17	Dec3/20	Sen73773
10+d 5+ 0- 202(2) 22(2)(2)(2)(2)(2)(2)(2)(2)(2)(2)(2)(2)(2	11/Junn (ppm)	Mar17/14	Feb21/17	Dec3/20	Sen 23/23
Sep23/23/23	Silicon (ppm)	Mar17/14	Feb21/17	Dec3/20	San 73/73
2 1 <sup>00</sup>	Silicon (ppm)	Mar17/14	Feb21/17	Dec3/20	Sen 73/73
2 1 <sup>00</sup>	Silicon (ppm)	~		2	0
	Severe				
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40 - 톤 30 -	TRATIN		11111	100010	
	Abnormal			_	
10-	$\sim \sim$	~	~	~~~~	V
	- E0/IT/nul Jun2/IT-	Mar17/14 - Oct4/14 -	Feb21/17.	Dec3/20	Can 73/73
	록	W	2		<sup>a</sup>
3500	calcium				
2500 -	seeses phosphorus zinc	-A .	1		1
A B 1500-	autita A	And	VL	~	1
500	THE R. LEWIS CO.	~~~	-stal Par	-	P
c3/20+	n2/11	17/14 -	21/17	:3/20	Can 72/72
Sep	ոս որ յող	Mar 0c	Ee Se	De	Sen
	Cary, NC 27513 : 05 Feb 2024	Cary, NC 27513 : 05 Feb 2024 : 07 Feb 2024	Cary, NC 27513 : 05 Feb 2024 : 07 Feb 2024	Cary, NC 27513 : 05 Feb 2024	Cary, NC 27513 : 05 Feb 2024 : 07 Feb 2024

