

# **OIL ANALYSIS REPORT**

## KEMP QUARRIES / RIVER VALLEY ARKOMA Machine Id OHT102

Component Rear Left Final Drive Fluid MOBIL MOBILUBE HD 80W90 (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

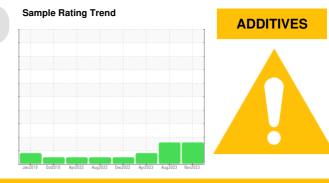
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

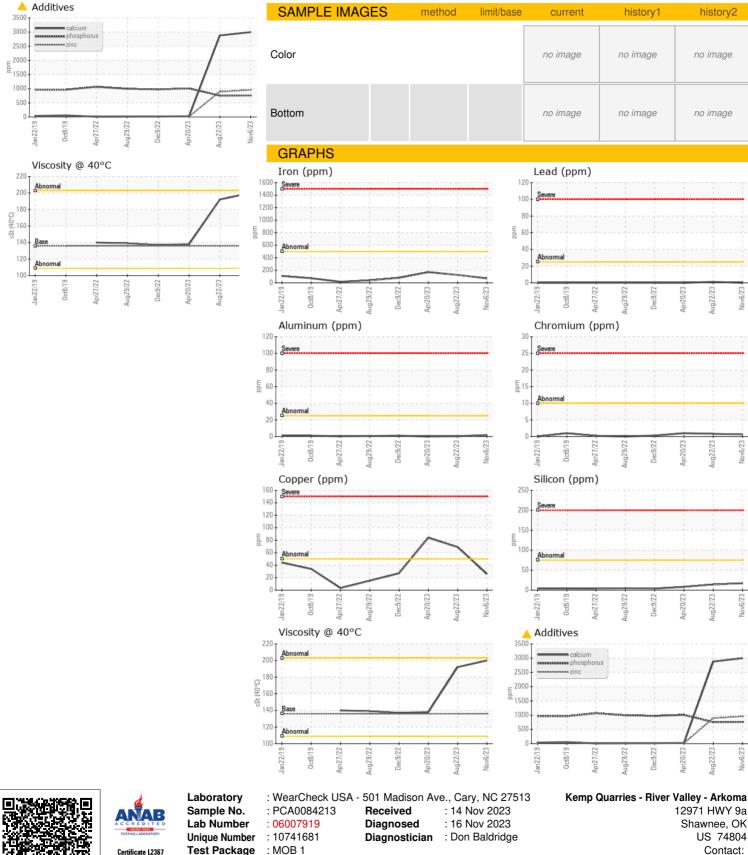
Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type. The condition of the oil is acceptable for the time in service.



Sample Date Client Info 06 Nov 2023 22 Aug 2023 20 Apr 2023   Machine Age hrs Client Info 29340 29115 28531 0   Oil Age hrs Client Info 29115 28531 0   Sample Status Image Client Info Not Change N/A   Sample Status Image Image Current Nistory1 ABNORMAL   WEAR METALS method Imit/base current Nistory1 ABNORMAL   Chromium ppm ASTM 05185n >10 <1 <1 1   Nickel ppm ASTM 05185n >25 2 <1 0 0   Aluminum ppm ASTM 05185n >25 2 <1 0 0   Cadmium ppm ASTM 05185n >50 26 6 6 8 4 1 0   Cadmium pm ASTM 05185n >25 2 1 2 3   Marahum	SAMPLE INFORM	<b>MATION</b>	method	limit/base	current	history1	history2
Machine AgehrsClient Info293402911528531Oil AgageIrrsClient Info20115285310Sample StatusIrrsClient InfoNAChangeNASample StatusIrrsMethodATTENTIONATTENTIONABNORMALWEAR METALSmethodInitotascurrentHistoryMistoryIronppmASTM05155>10<1<11NickelppmASTM05155>10<1<11NickelppmASTM05155<2<100SliveriamppmASTM05155>252<10CopperppmASTM05155>25233VanadiumppmASTM05155<1<100CadmiumppmASTM05155>10<100ADDITIVESmethodInitotascurrentHistoryHistoryBariumppmASTM05155<1122MaganeseppmASTM05155112211MaganeseppmASTM0515511222PinoshroumpmASTM05155174820SiliconppmASTM0515517422MaganeseppmASTM0515517432SiliconppmASTM0515511222MaganeseppmASTM051551	Sample Number		Client Info		PCA0084213	PCA0084286	PCA05834763
Machine AgehrsClient Info293402911528531Oil AgageIrrsClient Info20115285310Sample StatusIrrsClient InfoNAChangeNASample StatusIrrsMethodATTENTIONATTENTIONABNORMALWEAR METALSmethodInitotascurrentHistoryMistoryIronppmASTM05155>10<1<11NickelppmASTM05155>10<1<11NickelppmASTM05155<2<100SliveriamppmASTM05155>252<10CopperppmASTM05155>25233VanadiumppmASTM05155<1<100CadmiumppmASTM05155>10<100ADDITIVESmethodInitotascurrentHistoryHistoryBariumppmASTM05155<1122MaganeseppmASTM05155112211MaganeseppmASTM0515511222PinoshroumpmASTM05155174820SiliconppmASTM0515517422MaganeseppmASTM0515517432SiliconppmASTM0515511222MaganeseppmASTM051551			Client Info		06 Nov 2023	22 Aug 2023	20 Apr 2023
Oil Age hrs Client Info 29115 28531 0   Oil Changed Client Info Not Change NA   Sample Status Image Client Info ATTENTION ABNORMAL   WEAR METALS method Imil/base current history1 history1   Iron ppm ASTM 05185m >500 71 126 171   Chromium ppm ASTM 05185m >10 <1 <1 1   Nickel ppm ASTM 05185m >25 2 <1 0   Silver ppm ASTM 05185m >25 0 1 0   Copper ppm ASTM 05185m >50 26 69 & 4   Tin ppm ASTM 05185m <1 <1 0 0   Cadmium ppm ASTM 05185m <1 <1 0 0   Adadum ppm ASTM 05185m <1 <1 2 2   Cadmium ppm	Machine Age	hrs	Client Info		29340	-	
Oil ChangedClient InfoNot ChangedNA ATTENTIONNA ABNORMALSample StatusIImit DotImit Dotsecurrenthistory1ABNORMALWEAR METALSmethodlimit/basecurrenthistory1nestory2IronppmASTM D5185>10<1<111ChromiumppmASTM D5185>10<1<11IronppmASTM D5185>10<1<10SilverppmASTM D5185>252<10LeadppmASTM D5185>25010CopperppmASTM D5185>10<123VanadiumppmASTM D5185>10<123VanadiumppmASTM D5185>10<123VanadiumppmASTM D5185>10<1<10CadmiumppmASTM D5185<1<1<10BoronppmASTM D51852211<1MagneseppmASTM D51852211<2BariumppmASTM D51852211<2MolybdenumppmASTM D51852211<2CadiciumppmASTM D51852211<2SilconppmASTM D51852211<2SudumppmASTM D518523211S	Oil Age	hrs	Client Info		29115	28531	0
WEAR METALS method limit/base current history1 history2   Iron ppm ASTM D5185n >500 71 126 171   Chromium ppm ASTM D5185n >10 <1 <1 1   Nickel ppm ASTM D5185n >10 <1 <1 0   Silver ppm ASTM D5185n >25 2 <1 0   Aluminum ppm ASTM D5185n >25 2 <1 0   Copper ppm ASTM D5185n >50 26 69 &84   Tin ppm ASTM D5185n >50 21 <1 0   Cadmium ppm ASTM D5185n >10 <1 2 3   Vanadium ppm ASTM D5185n <1 <1 2 2   Boron ppm ASTM D5185n <11 2 2 11   Magnesium ppm ASTM D5185n <11 2 <t< th=""><th>Oil Changed</th><th></th><th>Client Info</th><th></th><th>Not Changd</th><th>Changed</th><th>N/A</th></t<>	Oil Changed		Client Info		Not Changd	Changed	N/A
Iron ppm ASTM D5185n >500 71 126 171   Chromium ppm ASTM D5185n >10 <1 1 1   Nickel ppm ASTM D5185n >10 <1 <1 1   Titanium ppm ASTM D5185n >25 2 <1 0   Silver ppm ASTM D5185n >25 0 1 0   Copper ppm ASTM D5185n >25 0 1 0   Copper ppm ASTM D5185n >50 26 69 & 84   Tin ppm ASTM D5185n >10 <1 2 3   Vanadium ppm ASTM D5185n <1 <1 0 0   Cadmium ppm ASTM D5185n <1 <1 2 2 11   Manganese ppm ASTM D5185n 2 2 11 2 2 11   Molybdenum ppm ASTM D5185n <th>Sample Status</th> <th></th> <th></th> <th></th> <th>ATTENTION</th> <th>ATTENTION</th> <th>ABNORMAL</th>	Sample Status				ATTENTION	ATTENTION	ABNORMAL
Dromium pm ASTM D5185m >10 <1	WEAR METALS	S	method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >10 <1 <1 <1 1   Titanium ppm ASTM D5185m <1	Iron	ppm	ASTM D5185m	>500	71	126	171
Titanium ppm ASTM D5185m <1 <1 0 0   Silver ppm ASTM D5185m >25 2 <1	Chromium	ppm	ASTM D5185m	>10	<1	<1	1
Silver ppm ASTM D5185m <1 0 0   Aluminum ppm ASTM D5185m >25 2 <1	Nickel	ppm	ASTM D5185m	>10	<1	<1	1
Aluminum ppm ASTM D5185m >25 2 <1 0   Lead ppm ASTM D5185m >25 0 1 0   Copper ppm ASTM D5185m >50 26 69 A 84   Tin ppm ASTM D5185m >10 <1	Titanium	ppm	ASTM D5185m		<1	<1	0
Lead ppm ASTM D5185m >25 0 1 0   Copper ppm ASTM D5185m >50 26 69 ▲ 84   Tin ppm ASTM D5185m >10 <1	Silver	ppm	ASTM D5185m		<1	0	0
Copper ppm ASTM D5185m >50 26 69 ▲ 84   Tin ppm ASTM D5185m >10 <1	Aluminum	ppm	ASTM D5185m	>25	2	<1	0
Copper ppm ASTM D5185m >50 26 69 ▲ 84   Tin ppm ASTM D5185m >10 <1	Lead		ASTM D5185m	>25	0	1	0
Tin ppm ASTM D5185m >10 <1 2 3   Vanadium ppm ASTM D5185m <1	Copper		ASTM D5185m	>50	26	69	<b>A</b> 84
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MolybdenumppmASTM D5185m2211ManganeseppmASTM D5185m<1	Barium		ASTM D5185m		0	0	0
MarganeseppmASTM D5185m<122MagnesiumppmASTM D5185m1122CalciumppmASTM D5185m7617541008ZincppmASTM D5185m7617541008ZincppmASTM D5185m4 3957& 89511SulfurppmASTM D5185m▲ 4317▲ 525020254CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>7517148SodiumppmASTM D5185m>20132<1	Molvbdenum				2	2	11
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SiliconppmASTM D5185m>7517148SodiumppmASTM D5185m5<1	-						
SodiumppmASTM D5185m5<1	CONTAMINAN	TS	method	limit/base	current	history1	history2
SodiumppmASTM D5185m5<1<1PotassiumppmASTM D5185m>20132<1	Silicon	ppm	ASTM D5185m	>75	17	14	8
VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONEMODERPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONELIGHTNONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGFree Waterscalar*VisualNORMLNEGNEGNEGVisc @ 40°CcStASTM D445136200192138	Sodium		ASTM D5185m		5	<1	<1
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Precipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONELIGHTNONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGFree Waterscalar*VisualImit/basecurrenthistory1history2Visc @ 40°CcStASTM D445136200192138	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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Debrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGFree Waterscalar*VisualNEGNEGNEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D445136200192138	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGFree Waterscalar*VisualImit/basecurrenthistory1history2Visc @ 40°CcStASTM D445136200192138	Silt	scalar	*Visual	NONE	LIGHT	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGFree Waterscalar*VisualImit/baseCurrenthistory1history2FLUID PROPERTIESmethodlimit/basecurrenthistory1138	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Odorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGFree Waterscalar*VisualMEGNEGNEGNEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D445136200192138	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Waterscalar*Visual>0.2NEGNEGNEGFree Waterscalar*VisualImit/basecurrenthistory1history2FLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D445136200192138	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Free Waterscalar*VisualNEGNEGNEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D445136200192138	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
FLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D445136200192138	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Visc @ 40°C cSt ASTM D445 136 200 192 138	Free Water	scalar	*Visual		NEG	NEG	NEG
-	FLUID PROPE	RTIES	method	limit/base	current	history1	history2
:03:47) Rev: 1 Submitted By	Visc @ 40°C	cSt	ASTM D445	136	200	192	138
	:03:47) Rev: 1						Submitted By



# **OIL ANALYSIS REPORT**



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)

12971 HWY 9a

Shawnee, OK

US 74804

Contact:

Т:

F:

pr20/23

arkomashop@kempquarries.net

history2

no image

no image