

## **OIL ANALYSIS REPORT**

Sample Rating Trend





## KEMP QUARRIES / RIVER VALLEY BACKBONE **OHT124**

Component **Diesel Engine** 

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Recommendation	Sample Number		Client Info		GFL0103897	PCA0084849	PCA0084787
Resample at the next service interval to monitor.	Sample Date		Client Info		30 Jan 2024	25 Oct 2023	18 Sep 2023
Wear	Machine Age	hrs	Client Info		30546	30229	30012
All component wear rates are normal.	Oil Age	hrs	Client Info		317	217	325
Contamination	Oil Changed		Client Info		Changed	Changed	Changed
There is no indication of any contamination in the	Sample Status				NORMAL	NORMAL	NORMAL
oil.	CONTAMINAT	ION	method	limit/base	current	historv1	history2
Fluid Condition	Fuel		WC Mathad	. 5	.1.0	.1.0	-1.0
The BN result indicates that there is suitable	Mator		WC Method	>0.0		<1.0	<1.0
alkalinity remaining in the oil. The condition of the	Clycol		WC Method	>0.2	NEG	NEG	NEG
on is suitable for further service.			WC Method		NEG	NEG	NEG
	WEAR METAL	S	method	limit/base	current	history1	history2
	Iron	ppm	ASTM D5185m	>100	15	17	26
	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
	Nickel	ppm	ASTM D5185m	>2	2	<1	0
	Titanium	ppm	ASTM D5185m	>2	<1	<1	0
	Silver	ppm	ASTM D5185m	>2	<1	0	0
	Aluminum	ppm	ASTM D5185m	>25	4	2	<1
	Lead	ppm	ASTM D5185m	>40	2	1	0
	Copper	ppm	ASTM D5185m	>330	7	4	6
	Tin	ppm	ASTM D5185m	>15	<1	<1	<1
	Vanadium	ppm	ASTM D5185m		<1	0	0
	Cadmium	ppm	ASTM D5185m		0	<1	0
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m	0	3	4	13
	Barium	ppm	ASTM D5185m	0	0	5	0
	Molybdenum	ppm	ASTM D5185m	0	58	58	54
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	0	<1 892	<1 902	<1 1004
	Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	<1 892 1050	<1 902 1096	<1 1004 1203
	Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0	<1 892 1050 1026	<1 902 1096 1088	<1 1004 1203 1066
	Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0	<1 892 1050 1026 1223	<1 902 1096 1088 1185	<1 1004 1203 1066 1278
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0	<1 892 1050 1026 1223 3117	<1 902 1096 1088 1185 3552	<1 1004 1203 1066 1278 3596
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	0 limit/base	<1 892 1050 1026 1223 3117 current	<1 902 1096 1088 1185 3552 history1	<1 1004 1203 1066 1278 3596 history2
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	0 limit/base >25	<1 892 1050 1026 1223 3117 current 8	<1 902 1096 1088 1185 3552 history1 4	<1 1004 1203 1066 1278 3596 history2 4
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	0 limit/base >25	<1 892 1050 1026 1223 3117 current 8 2	<1 902 1096 1088 1185 3552 history1 4 0	<1 1004 1203 1066 1278 3596 history2 4 3
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 limit/base >25 >20	<1 892 1050 1026 1223 3117 current 8 2 4	<1 902 1096 1088 1185 3552 history1 4 0 2	<1 1004 1203 1066 1278 3596 history2 4 3 10
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 limit/base >25 >20 limit/base	<1 892 1050 1026 1223 3117 current 8 2 4 current	<1 902 1096 1088 1185 3552 history1 4 0 2 history1	<1 1004 1203 1066 1278 3596 history2 4 3 10 history2
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D51854	0 limit/base >25 >20 limit/base >3	<1 892 1050 1026 1223 3117 current 8 2 4 current 0.4	<1 902 1096 1088 1185 3552 history1 4 0 2 history1 0.5	<1 1004 1203 1066 1278 3596 history2 4 3 10 history2 0.7
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7824	0 limit/base >25 >20 limit/base >3 >20	<1 892 1050 1026 1223 3117 current 8 2 4 current 0.4 6.1	<1 902 1096 1088 1185 3552 history1 4 0 2 history1 0.5 5.8	<1 1004 1203 1066 1278 3596 history2 4 3 10 history2 0.7 6.5
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844	0 limit/base >25 >20 limit/base >3 >20 >30	<1 892 1050 1026 1223 3117 current 8 2 4 current 0.4 6.1 18.3	<1 902 1096 1088 1185 3552 history1 4 0 2 history1 0.5 5.8 18.3	<1 1004 1203 1066 1278 3596 history2 4 3 10 history2 0.7 6.5 18.4
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAI	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m           ASTM D7844           *ASTM D7624           *ASTM D7415           method	0 1 1 1 2 2 2 3 2 0 1 1 1 1 1 2 0 3 3 2 0 3 0 1 1 1 1 1 1 1 1 1 1 1 1 1	<1 892 1050 1026 1223 3117  current  8 2 4  current 0.4 6.1 18.3  current	<1 902 1096 1088 1185 3552 history1 4 0 2 history1 0.5 5.8 18.3 history1	<1 1004 1203 1066 1278 3596 history2 4 3 10 history2 0.7 6.5 18.4 history2
	Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAI Oxidation	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844	0 limit/base >25 >20 limit/base >3 >20 >30 limit/base >25	<1 892 1050 1026 1223 3117 current 8 2 4 current 0.4 6.1 18.3 current 13.6	<1 902 1096 1088 1185 3552 history1 4 0 2 history1 0.5 5.8 18.3 history1 13.6	<1 1004 1203 1066 1278 3596 history2 4 3 10 history2 0.7 6.5 18.4 history2 13.2



## **OIL ANALYSIS REPORT**

VISUAL



	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	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
/23 -	Appearance	scalar	*Visual	NORMI		NORMI	NORMI
0ct25	Odor	scalar	*Visual	NORMI	NORMI	NORMI	NORMI
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
'C	Free Water	scalar	*Visual		NEG	NEG	NEG
			riodial				
	FLUID PROPE	RHES	method	limit/base	current	history1	history2
		CSt	ASTM D445	14	12.6	12.9	12.9
	GRAPHS						
	<sup>30</sup> T						
/23 +	iron						
0 ct25	2.5 nickel						
	20						
	툡 15 -						
	10-						
	5-						
		723		24			
	Sep 18	0ct25		Jan 30			
	Non-ferrous Meta	ls		,			
	<sup>10</sup> L						
	copper						
	o T						
	6-						
	ud d		and the second se				
	2 -	and the second diversion of th	Accumit Consultant	A4444444			
	223300004946524433333334004469448488						
	8/23 .	5/23 .		0/24 .			
	Sep 1	0ct2		Jan3			
	Viscosity @ 100°C	C			Base Number		
	<sup>18</sup>			10.0	Base		
	17- Abnormal						
	16			(B/HO			
	6 15			B 6.0	• 1 1		
	tion 14 Base						
				Se Nu			
	12	1		<sup>66</sup> 2.0			
	11			00.			
	8/23	5/23		0/24	8/23	5/23	0,24
	Sep 1	0ct2		Jan3	Sep 1	0ct2	Jan 3
	WaarObaak USA 50	1 Modiaca	Avo Com	NO 07510	Kamp O.		allow Bookhans
	<ul> <li>y : wearGneck USA - 50</li> <li>o : GEL 0103897</li> </ul>	Receiv	Ave., Cary	, NU 27513 Feb 2024	Kemp Qua	Irries - River V	aney - Backbone
Lab Numb	per : 06081943	Tested	:08	Feb 2024			Huntington, AR
Unique Num	ber :10869388	Diagno	<b>sed</b> : 08	Feb 2024 - Sea	an Felton		US 72940
Certificate L2367 Test Packa	ige : FLEET		0.007 1000	<b>、</b>			Contact:
I o discuss this sample rep	oort, contact Customer Serv	/ICe at 1-80	0-237-1369	l. litation	backb	one@rivervall	eyquarries.com
Statements of conformity to	o specifications are based i	on the simi	e or accred	nauon. nce decision i	rule (JCGM 106:	2012)	F:
· · · · · · · · · · · · · · · · · · ·	,					/	

Submitted By: Matt oversee 654, 654S, 659 - Matthew Shinault