

### **OIL ANALYSIS REPORT**

Sample Rating Trend



# 515 - GREEN DIAMOND RESOURCES

**Diesel Engine** 

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

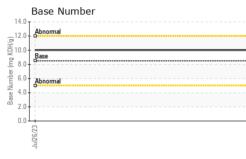
#### Fluid Condition

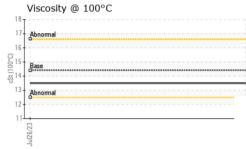
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

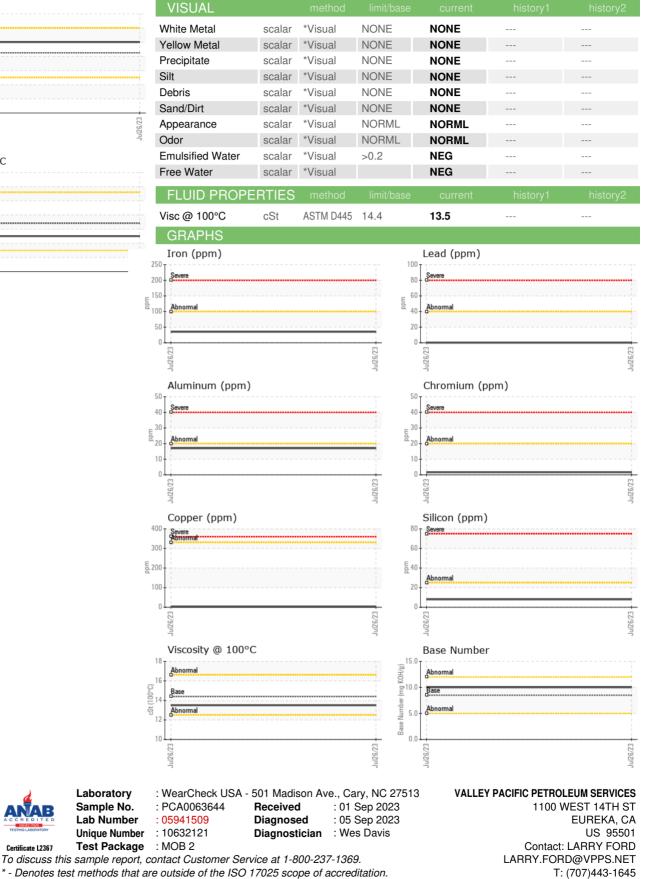
				Jul2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0063644		
Sample Date		Client Info		26 Jul 2023		
Machine Age	hrs	Client Info		2470		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method	20	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron		ASTM D5185m	>100	35		
Chromium	ppm	ASTM D5185m	>20	2		
Nickel	ppm ppm	ASTM D5185m	>20	2		
Titanium	ppm	ASTM D5185m	~	2		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum		ASTM D5185m	>20	17		
Lead	ppm	ASTM D5185m	>20	0		
Copper	ppm ppm	ASTM D5185m	>330	2		
Tin	ppm	ASTM D5185m	>15	0		
Vanadium	ppm	ASTM D5185m	>15	0		
Cadmium	ppm	ASTM D5185m		0		
	ppm		limit/base	-	biotoryd	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	6		
				2		
Barium	ppm	ASTM D5185m	10	_		
Molybdenum	ppm	ASTM D5185m	10	67		
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m	100	- 67 <1		
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	100 450	- 67 <1 1033		
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000	67 <1 1033 1224		
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150	- 67 <1 1033 1224 1138		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350	67 <1 1033 1224 1138 1384		  
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150	- 67 <1 1033 1224 1138		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350	67 <1 1033 1224 1138 1384		  
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	100 450 3000 1150 1350 4250	67 <1 1033 1224 1138 1384 3792 current 8	   	   
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	100 450 3000 1150 1350 4250 imit/base >25 >158	67 <1 1033 1224 1138 1384 3792 current	    history1	    history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >25	67 <1 1033 1224 1138 1384 3792 current 8	    history1 	    history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	100 450 3000 1150 1350 4250 imit/base >25 >158	67 <1 1033 1224 1138 1384 3792 current 8 2	    history1 	    history2 
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20	67 <1 1033 1224 1138 1384 3792 current 8 2 2 <1	   history1  	    history2  
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20 <b>limit/base</b> >3	67 <1 1033 1224 1138 1384 3792 current 8 2 <1 current	   history1   history1	    history2   history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20 <b>limit/base</b> >3	67 <1 1033 1224 1138 1384 3792 current 8 2 <1 current 0.2	    history1   history1 	     history2  history2  history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20 <b>limit/base</b> >3 >20	67 <1 1033 1224 1138 1384 3792 current 8 2 <1 current 0.2 8.1	   history1   history1  history1	     history2  history2  history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7844	100 450 3000 1150 1350 4250 <b>imit/base</b> >25 >158 >20 <b>imit/base</b> >3 >20 >30	67 <1 1033 1224 1138 1384 3792 current 8 2 <1 current 0.2 8.1 17.8	   history1  history1  history1	    history2  history2  history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20 <b>limit/base</b> >3 >20 >30	67 <1 1033 1224 1138 1384 3792 current 8 2 <1 current 0.2 8.1 17.8 current	   history1  history1  history1   history1	    history2  history2  history2



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

Certificate L2367

Laboratory

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