

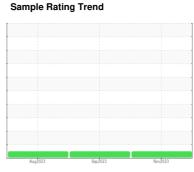
OIL ANALYSIS REPORT

Old Bridge PETERBILT 2669

Component

Diesel Engine

GIBRALTAR 15W/40 SUPER S-3 LX (11)





Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

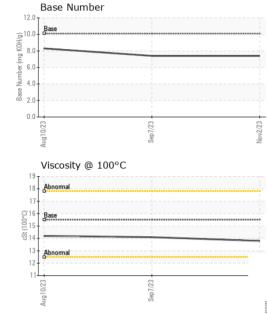
Fluid Condition

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

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0863225	WC0840442	WC0830856
Sample Date		Client Info		02 Nov 2023	07 Sep 2023	10 Aug 2023
Machine Age	hrs	Client Info		3193	2758	13939
Oil Age	hrs	Client Info		0	450	150
Oil Changed		Client Info		Changed	Changed	Filtered
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	7	11	7
Chromium	ppm	ASTM D5185m	>4	<1	0	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	7	10	7
Lead	ppm	ASTM D5185m	>45	0	<1	0
Copper	ppm	ASTM D5185m	>85	0	1	<1
Tin	ppm	ASTM D5185m	>4	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	<1
		AOTA DELOE		_		0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES	ppm	method	limit/base	current	0 history1	history2
	ppm		limit/base			
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1	history2
ADDITIVES Boron Barium	ppm	method ASTM D5185m ASTM D5185m		current 1 0	history1 6 0	history2 9
ADDITIVES Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m		current 1 0 57	history1 6 0 64	history2 9 0 65
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66	current 1 0 57 <1	history1 6 0 64 <1	history2 9 0 65 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66	current 1 0 57 <1 691	history1 6 0 64 <1 861	history2 9 0 65 <1 847
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050	current 1 0 57 <1 691 1374	history1 6 0 64 <1 861 1352	history2 9 0 65 <1 847 1303
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	66 1000 1050 1150	current 1 0 57 <1 691 1374 1010	history1 6 0 64 <1 861 1352 1017	history2 9 0 65 <1 847 1303 1053
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	66 1000 1050 1150	current 1 0 57 <1 691 1374 1010 1204	history1 6 0 64 <1 861 1352 1017 1288	history2 9 0 65 <1 847 1303 1053 1256
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	666 1000 1050 1150 1270	current 1 0 57 <1 691 1374 1010 1204 3083	history1 6 0 64 <1 861 1352 1017 1288 3811	history2 9 0 65 <1 847 1303 1053 1256 3881
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	666 1000 1050 1150 1270	current 1 0 57 <1 691 1374 1010 1204 3083 current	history1 6 0 64 <1 861 1352 1017 1288 3811 history1	history2 9 0 65 <1 847 1303 1053 1256 3881 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	66 1000 1050 1150 1270 limit/base >30	current 1 0 57 <1 691 1374 1010 1204 3083 current	history1 6 0 64 <1 861 1352 1017 1288 3811 history1 4	history2 9 0 65 <1 847 1303 1053 1256 3881 history2 4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	66 1000 1050 1150 1270 limit/base >30	current 1 0 57 <1 691 1374 1010 1204 3083 current 3 0	history1 6 0 64 <1 861 1352 1017 1288 3811 history1 4	history2 9 0 65 <1 847 1303 1053 1256 3881 history2 4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	66 1000 1050 1150 1270 limit/base >30 >20	current 1 0 57 <1 691 1374 1010 1204 3083 current 3 0 16	history1 6 0 64 <1 861 1352 1017 1288 3811 history1 4 2 19	history2 9 0 65 <1 847 1303 1053 1256 3881 history2 4 2 13
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	66 1000 1050 1150 1270 limit/base >30 >20 limit/base >3	current 1 0 57 <1 691 1374 1010 1204 3083 current 3 0 16 current	history1 6 0 64 <1 861 1352 1017 1288 3811 history1 4 2 19 history1	history2 9 0 65 <1 847 1303 1053 1256 3881 history2 4 2 13
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050 1150 1270 limit/base >30 >20 limit/base >3	current 1 0 57 <1 691 1374 1010 1204 3083 current 3 0 16 current	history1 6 0 64 <1 861 1352 1017 1288 3811 history1 4 2 19 history1 0.4	history2 9 0 65 <1 847 1303 1053 1256 3881 history2 4 2 13 history2 0.3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050 1150 1270 limit/base >30 >20 limit/base >3 >20	current 1 0 57 <1 691 1374 1010 1204 3083 current 3 0 16 current 0.4 7.9	history1 6 0 64 <1 861 1352 1017 1288 3811 history1 4 2 19 history1 0.4 8.1	history2 9 0 65 <1 847 1303 1053 1256 3881 history2 4 2 13 history2 0.3 6.5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method *ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	66 1000 1050 1150 1270 limit/base >30 >20 limit/base >3 >20 >3 >20 >30	current 1 0 57 <1 691 1374 1010 1204 3083 current 3 0 16 current 0.4 7.9 19.1	history1 6 0 64 <1 861 1352 1017 1288 3811 history1 4 2 19 history1 0.4 8.1 18.1	history2 9 0 65 <1 847 1303 1053 1256 3881 history2 4 2 13 history2 0.3 6.5 17.9



OIL ANALYSIS REPORT



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	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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.5	13.8	14.1	14.2
VISC W 100 C	USI	ASTIVI D443	13.5	13.0	14.1	14.4

	0 00 0	COL	AOTIVI DTTO	10.0		10.0	17.1	17.2
G	RAPHS							
0.00	on (ppm)					Lead (ppm))	
1	evere				80	Severe		
150 - A	bnormal				60-	Abnormal		
월 100 + T-					₩ 40 -			
50					20			
/Z3		/23		<u>₩</u> 62/	01	/23		- 52/
Aug10/23		Sep7/23.		Nov2/23		Aug 10/23	Sep7/23	Nov2/23
Al	uminum (ppm)					Chromium	(ppm)	
50 Se	evere				10	Severe]	
	bnormal							
E 30 - A					udd 4	Abnormal		
10					2-			
0/23		Sep7/23 -		Nov2/23	0.1	1/23	Sep7/23	173
Aug10/23		Sep		Nov		Aug10/23	Sep	Nov2/23
200 T	opper (ppm)				50 T	Silicon (ppn	n)	
	evere				40	Severe		
					_∈ 30 -	Abnormal		
1	bnormal				E 30-			
50					10			
0/23		Sep7/23 -		Nov2/23	01	0/23	Sep7/23 +	Nov2/23 +
Aug10/23				Nov		Aug10/23		Nov
Vi 20 T	scosity @ 100°C				12.0 -	Base Numb	er	
18 - A	bnormal	mana		-	Base Number (mg KOH/g)	Base		
() 16 - B	ase				8.0 - ud			
	bnormal				4.0			
12					2.0 0.0			
Aug10/23		Sep7/23		Nov2/23		Aug10/23	Sep7/23 -	Nov2/23 -
Augl		Sel		Nov		Aug	S	Nov





Certificate L2367

Laboratory Sample No. Lab Number

: 06010071 Unique Number : 10749215

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0863225

Received Diagnosed

: 16 Nov 2023 : 17 Nov 2023

Diagnostician : Wes Davis

Test Package : MOB 1 (Additional Tests: TBN)

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)

INTERSTATE WASTE-OLD BRIDGE

586 OLD WATERWORKS ROAD OLD BRIDGE, NJ

US 08857

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