

OIL ANALYSIS REPORT

HDXMV32BLKBOTTOM

Component
2 New (Unused) Oil
Fluid

WADDICK FUELS MV 32 (--- LTR)

Sample Rating Trend



DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample.

Wear

{not applicable}

Contamination

{not applicable}

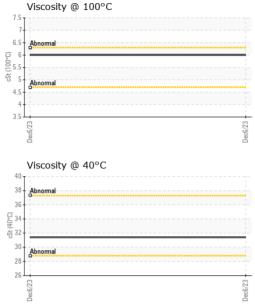
Fluid Condition

{not applicable}

				Dec2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC		
Sample Date		Client Info		06 Dec 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)		0		
Chromium	ppm	ASTM D5185(m)		0		
Nickel	ppm	ASTM D5185(m)		<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)		<1		
Lead	ppm	ASTM D5185(m)		0		
Copper	ppm	ASTM D5185(m)		0		
Tin	ppm	ASTM D5185(m)		0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		0		
Barium	ppm	ASTM D5185(m)		0		
Molybdenum	ppm	ASTM D5185(m)		0		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)		2		
Calcium	ppm	ASTM D5185(m)		60		
Phosphorus	ppm	ASTM D5185(m)		369		
Zinc	ppm	ASTM D5185(m)		457		
Sulfur	ppm	ASTM D5185(m)		857		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)		<1		
Sodium	ppm	ASTM D5185(m)		0		
Potassium	ppm	ASTM D5185(m)	>20	<1		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0		
Nitration	Abs/cm	ASTM D7624*		1.6		
Sulfation	Abs/.1mm	ASTM D7415*		16.6		
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*		8.5		



OIL ANALYSIS REPORT



VISUAL		method	limit/base	current	history1	history2		
White Metal	scalar	Visual*	NONE	NONE				
Yellow Metal	scalar	Visual*	NONE	NONE				
Precipitate	scalar	Visual*	NONE	NONE				
Silt	scalar	Visual*	NONE	NONE				
Debris	scalar	Visual*	NONE	NONE				
Sand/Dirt	scalar	Visual*	NONE	NONE				
Appearance	scalar	Visual*	NORML	NORML				
Odor	scalar	Visual*	NORML	NORML				
Emulsified Water	scalar	Visual*		NEG				
Free Water	scalar	Visual*		NEG				
FLUID PROPE	RTIES	method	limit/base	current	history1	history2		
Visc @ 40°C	cSt	ASTM D7279(m)		31.4				
Visc @ 100°C	cSt	ASTM D7279(m)		6				
Viscosity Index (VI)	Scale	ASTM D2270*		140				
SAMPLE IMAG	ES	method	limit/base	current	history1	history2		
Color					no image	no image		
Bottom					no image	no image		
GRAPHS								



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5698011

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Petro-Canada Technical/Nick Finelli : PC : 02604926

Recieved Diagnosed

Diagnostician : Kevin Marson Test Package : TEST (Additional Tests: FT-IR, ICP, KV100, KV40, Spat, VI) To discuss this sample report, contact Customer Service at 1-800-268-2131.

: 27 Dec 2023

: 22 Dec 2023

Mississauga, ON CA L5J 1K2 Contact: Nick Finelli nick.finelli@hfsinclair.com

F: (877)352-8916

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.