

Area MEK

## **OIL ANALYSIS REPORT**

Sample Rating Trend



[MEK] MEK-TOTE 7 Component New (Unused) Oil Fluid BELRAY Turbine Oil 150 (--- GAL)

### DIAGNOSIS

#### A Recommendation

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

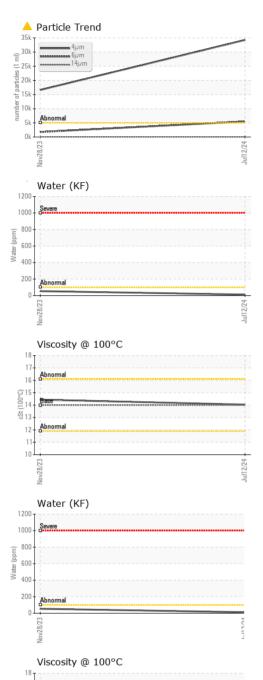
#### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

SAMPLE INFORM	<b>MATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		RP0042804	RP0038947	
Sample Date		Client Info		12 Jul 2024	28 Nov 2023	
Machine Age	mls	Client Info		0	0	
Oil Age	mls	Client Info		0	0	
Oil Changed		Client Info		Not Changd	Not Changd	
Sample Status				ABNORMAL	NORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>5	0	0	
Chromium	ppm	ASTM D5185m	>5	0	<1	
Nickel	ppm	ASTM D5185m	>5	0	0	
Titanium	ppm	ASTM D5185m	>5	0	0	
Silver		ASTM D5185m	>5	0	0	
Aluminum	ppm	ASTM D5185m		0	2	
	ppm		>5	0	0	
Lead	ppm	ASTM D5185m				
Copper Tin	ppm	ASTM D5185m		0	<1 0	
	ppm	ASTM D5185m	>5	0		
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	
Barium	ppm	ASTM D5185m		<1	2	
Molybdenum	ppm	ASTM D5185m		<1	2	
Manganese	ppm	ASTM D5185m		0	0	
Magnesium	ppm	ASTM D5185m		3	5	
Calcium	ppm	ASTM D5185m		11	13	
Phosphorus	ppm	ASTM D5185m		35	40	
Zinc	ppm	ASTM D5185m		12	3	
CONTAMINANTS	5	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<1	0	
Sodium	ppm	ASTM D5185m		2	0	
Potassium	ppm	ASTM D5185m	>20	<1	<1	
Water	%	ASTM D6304		0.001	0.005	
ppm Water	ppm	ASTM D6304		12	54	
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>4</b> 34250	16608	
Particles >6µm		ASTM D7647	>1300	<u> </u>	1759	
Particles >14µm		ASTM D7647	>160	35	55	
Particles >21µm		ASTM D7647	>40	6	18	
Particles >38µm		ASTM D7647	>10	0	2	
Particles >71µm		ASTM D7647	>3	0	1	
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>22/20/12</b>	21/18/13	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.088	0.093	
				0.000	0.000	



# **OIL ANALYSIS REPORT**





: RP0042804

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.

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

Test Package : IND 2 (Additional Tests: FT-IR, KV100, PrtCount, VI)

Received

Diagnosed

Tested

: 16 Jul 2024

: 19 Jul 2024

Laboratory

Sample No.

Lab Number : 06238305

Unique Number : 11127139

VISUAL		method	limit/base	current	history1	history2
/hite Metal	scalar	*Visual	NONE	NONE	NONE	
ellow Metal	scalar	*Visual	NONE	NONE	NONE	
recipitate	scalar	*Visual	NONE	NONE	NONE	
ilt	scalar	*Visual	NONE	NONE	NONE	
ebris	scalar	*Visual	NONE	NONE	NONE	
and/Dirt	scalar	*Visual	NONE	NONE	NONE	
ppearance	scalar	*Visual	NORML	NORML	NORML	
dor	scalar	*Visual	NORML	NORML	NORML	
mulsified Water	scalar	*Visual		NEG	NEG	
ree Water	scalar	*Visual		NEG	NEG	
FLUID PROPERT	IES	method	limit/base	current	history1	history2
isc @ 40°C	cSt	ASTM D445	142.2	140.4	142.9	
isc @ 100°C	cSt	ASTM D445	14.0	14.04	14.44	
iscosity Index (VI)	Scale	ASTM D2270	99	96	99	
SAMPLE IMAGES	6	method	limit/base	current	history1	history2
olor						no image
ottom						no image
GRAPHS						
						_
Ferrous Alloys			491,520			T <sup>26</sup>
Ferrous Alloys				I		
Ferrous Alloys			491,520	Severe		-24
Ferrous Alloys			491,520 122,880 30,720	Severe		726 -24 -22
Ferrous Alloys			491,520 122,880 30,720	Severe		726 -24 -22
Ferrous Alloys			491,520 122,880 30,720	Severe		726 -24 -22
Ferrous Alloys			491,520 122,880 30,720	Severe Abnormal		726 -24 -22
Ferrous Alloys	5		491,520 122,880 30,720	Severe		726 -24 -22
Ferrous Alloys	5		491,520 122,880 30,720	Severe		726 -24 -22
Ferrous Alloys	5		491,520 122,880 30,720 trian 1,920 trian 1	Severe		-26 -24 -22 -20 -18 -16 -14
Ferrous Alloys	5		491,520 122,880 30,720 100 100 100 100 100 100 100 100 100 1	Severe		-24 -24 -22 -20 -18 -16 -14 -14 -12
Ferrous Alloys	5		491,520 122,880 30,720 122,880 120,880 120,890 120,990 120,9000 120,900 100,900 100,900 100,900 100,900 100,900 100,90	Severe		-26 -24 -22 -20 -18 -16 -14 -12 -10
Ferrous Alloys	5		491,520 122,880 30,720 122,880 120,880 120,890 120,990 120,9000 120,900 100,900 100,900 100,900 100,900 100,900 100,90	Severe		-24 -24 -22 -20 -18 -16 -14 -12
Ferrous Alloys	5		491,520 122,880 30,720 122,880 122,880 122,880 122,880 122,880 120 120 120 120 120 120 120 120 120 12	Severe		-26 -24 -22 -20 -18 -16 -14 -12 -10
Ferrous Alloys	5		491,520 122,880 30,720 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 409,720 400,	Abnormal Abnormal	14μ 21μ	-26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -8
Ferrous Alloys	5		491,520 122,880 30,720 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 409,720 400,	Abnormal Abnormal		-26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -8
Ferrous Alloys	5		491,520 122,880 30,720 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 409,720 400,	Abnormal Abnormal		-26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -8
Non-ferrous Metals	5		491,520 122,880 30,720 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 409,720 400,	Abnormal Abnormal		-26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -8
Ferrous Alloys	5		491,520 122,880 30,720 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 407,680 409,720 400,	Abnormal Abnormal		-26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -6
Ferrous Alloys	5		491,520 122,880 30,720 122,880 120,880 120,890 120,990 120,900 120,900 120,900 120,900 120,900 120,900	Abnormal Abnormal		-26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -6



CALUMET 3333 MIDWAY AVENUE SHREVEPORT, LA : 19 Jul 2024 - Jonathan Hester US 71109 Contact: NICHOLAS LESAGE nicholas.lesage@clmt.com T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Report Id: CALSHR [WUSCAR] 06238305 (Generated: 07/21/2024 12:52:26) Rev: 1

Certificate 12367

Submitted By: CODY COMPTON

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