

## LABORATORY REPORT

Sample description **KT10SA01HY05**  
 Component **Hydraulic**  
 Number of the current sample **2343142**

Machine type: Hydraulic system line 03  
 Manufacturer: Viereck  
 Name of the oil: BP Energol HLP-HM 46  
 Amount of oil in the system: 650 l

### Diagnosis of the current laboratory values

#2343142 = KT10SA01HY05-2, after cleaning with an ultra fine filtering unit. Iron slightly increased. But the trend shows a slight decrease. The purity class of the oil is good. I advise you: Send us the next sample during your next maintenance or during the normal inspection in order to observe the trend behavior.

### Overall evaluation

Graduate engineer (FH) Stefan Mitterer

**Normal**

ANALYSIS RESULTS LABORATORY NUMBER	Current sample 2343142	Previous investigations 2343142
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#### OVERALL EVALUATION

Date of investigation	27.12.2012	27.12.2012
Date of sampling	04.12.2012	03.12.2012
Date of last oil change	15.11.2011	15.11.2011
Refilling amount since change	-	-
Duration since change	1656 h	1656
Whole duration	12 m	12
Changing of oil	No	No

#### WEAR

Iron	Fe	mg/kg	10	13
Chrome	Cr	mg/kg	0	0
Tin	Sn	mg/kg	0	1
Aluminium	Al	mg/kg	2	3
Nickel	Ni	mg/kg	0	0
Copper	Cu	mg/kg	4	4
Lead	Pb	mg/kg	0	0
Molybdenum	Mo	mg/kg	0	0
PQ index	-		OK	OK

#### CONTAMINATION

Silicon	Si	mg/kg	3	11
Potassium	K	mg/kg	0	0
Sodium	Na	mg/kg	1	0
Water K.F.		ppm	33	39

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**OIL CONDITION**

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Viscosity at 40°C	mm <sup>2</sup> /s	45.22	45.38
Viscosity at 100°C	mm <sup>2</sup> /s	6.63	6.80
Viscosity index	-	97	104
Oxidation	A/cm	1	1

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**ADDITIVES**

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Calcium	Ca	mg/kg	35	37
Magnesium	Mg	mg/kg	0	0
Boron	B	mg/kg	0	0
Zinc	Zn	mg/kg	419	403
Phosphorus	P	mg/kg	336	316
Barium	Ba	mg/kg	0	0
Sulphur	S	mg/kg	2142	2005

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**ADDITIONAL TESTS**

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Purity class	ISO 4406 (1999)	16/13/10	22/16/10
A: >4µm=ISO >4µm	Number/100ml	62719	2642970
B: >6µm=ISO >6µm	Number/100ml	6468	40220
C: >14µm=ISO>14µm	Number/100ml	727	924
D: >21µm	Number/100ml	259	287
E: >38µm	Number/100ml	32	50
F: >70µm	Number/100ml	32	17
Purity class	SAE AS 4059	7A	12A

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Sample and lid



Infrared spectrum

