



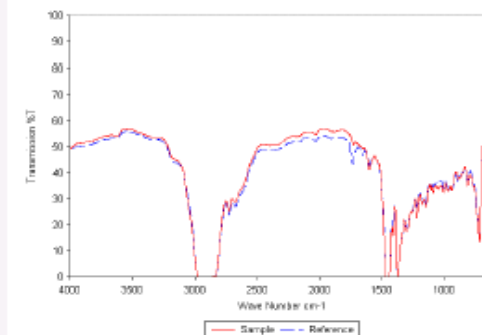
Oil analysis interpretation

ANALYSIS RESULTS			Current sample	Previous samples	
LAB NUMBER			1700697	1700698	1700699
SAMPLE RATING			!	?	!
Date tested			11.05.2012	13.10.2011	14.04.2011
Date of sample taken			27.04.2012	06.10.2011	09.04.2011
Date of last oil change			30.01.2009	30.01.2009	30.01.2009
Top-up since change	l		70	70	0
Operating hrs since change	h		20340	17160	13280
Total operating hrs	h		44300	41120	37240
Oil changed			no	no	no
WEAR					
Iron	Fe	mg/kg	108	55	76
Chrome	Cr	mg/kg	0	0	0
Tin	Sn	mg/kg	0	3	2
Aluminum	Al	mg/kg	0	0	0
Nickel	Ni	mg/kg	0	0	0
Copper	Cu	mg/kg	1	1	1
Lead	Pb	mg/kg	31	11	16
PQ index	-		50	31	29
CONTAMINATION					
Silicon	Si	mg/kg	3	1	1
Potassium	K	mg/kg	2	0	0
Sodium	Na	mg/kg	0	0	0
Water	%		< 0.10	< 0.10	< 0.10
OIL CONDITION					
Viscosity at 40°C	mm²/s		228.20	224.30	223.70
Viscosity at 100°C	mm²/s		19.81	18.65	18.58
Viscosity index	-		99	92	92
Oxidation	A/cm		4	3	4
ADDITIVES					
Calcium	Ca	mg/kg	8	4	0
Magnesium	Mg	mg/kg	0	0	0
Boron	B	mg/kg	1	1	0
Zinc	Zn	mg/kg	180	80	121
Phosphorus	P	mg/kg	265	238	248
Barium	Ba	mg/kg	0	0	0
Molybdenum	Mo	mg/kg	1	0	0
Sulphur	S	% Wt.	1.49	1.42	1.39
ADDITIONAL TESTS					
Neutralisation number	mgKOH/g		0.47	0.57	0.56

Bottle and Cap







Infrared Spectrum



Machine type:
 Manufacturer:
 Oil brand name:
 Oil quantity in system:

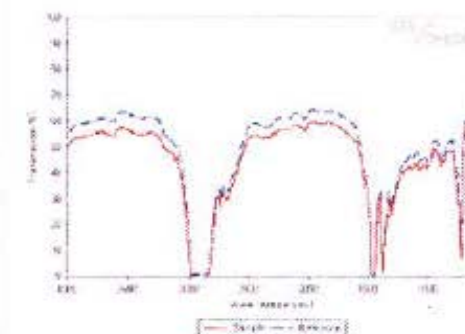
Mill 9
 Polysius
 Mobil Mobilgear XMP 220
 650 l

ANALYSIS RESULTS			Current sample	2 previous samples not shown ➡		
LAB NUMBER			1701176	1701177	1701178	1701179
SAMPLE RATING						
Date tested			07.06.2010	07.12.2009	04.12.2007	18.09.2007
Date sample taken			28.05.2010	03.12.2009	26.11.2007	11.09.2007
Date of last oil change			-	-	-	-
Top-up since change			-	-	-	-
Operating hrs since change			-	-	-	-
Total operating hrs			-	-	-	-
Oil changed			no	no	no	no
WEAR						
Iron	Fe	mg/kg	5	29	15	14
Chrome	Cr	mg/kg	0	0	0	0
Tin	Sn	mg/kg	0	0	0	0
Aluminum	Al	mg/kg	0	0	0	0
Nickel	Ni	mg/kg	0	0	0	0
Copper	Cu	mg/kg	1	1	1	2
Lead	Pb	mg/kg	0	0	0	0
PQ index	-		OK	43	26	30
CONTAMINATION						
Silicon	Si	mg/kg	15	15	16	16
Potassium	K	mg/kg	1	0	0	0
Sodium	Na	mg/kg	0	1	0	0
Water	%		< 0.10	< 0.10	< 0.10	< 0.10
OIL CONDITION						
Viscosity at 40°C	mm²/s		325.40	326.39	322.29	314.47
Viscosity at 100°C	mm²/s		34.71	34.33	34.54	33.71
Viscosity index	-		151	149	151	150
Oxidation	A/cm		1	1	1	1
ADDITIVES						
Calcium	Ca	mg/kg	1685	1494	1626	1592
Magnesium	Mg	mg/kg	2	3	8	9
Boron	B	mg/kg	0	0	0	0
Zinc	Zn	mg/kg	2	6	3	5
Phosphorus	P	mg/kg	335	318	357	347
Barium	Ba	mg/kg	0	0	0	0
Molybdenum	Mo	mg/kg	1019	870	926	914
Sulphur	S	mg/kg	1698	1812	1921	1891
ADDITIONAL TESTS						
Neutralisation number	mgKOH/g		1.40	1.30	1.07	1.19

Bottle and Cap




Infrared Spectrum



Machine type:
 Manufacturer:
 Oil brand name:
 Oil quantity in system:

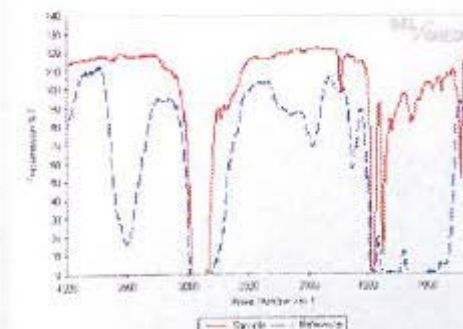
Getriebe
 Flender
 Castrol Optigear Synthetic X 320
 100

ANALYSIS RESULTS			Current sample	Previous samples
LAB NUMBER			1702097	
SAMPLE RATING				
Date tested			14.09.2012	
Date of sample taken			06.09.2012	
Date of last oil change			-	
Top-up since change			-	
Operating hrs since change		h	9096	
Total operating hrs		h	9096	
Oil changed			yes	
WEAR				
Iron	Fe	mg/kg	7	
Chrome	Cr	mg/kg	0	
Tin	Sn	mg/kg	0	
Aluminum	Al	mg/kg	0	
Nickel	Ni	mg/kg	0	
Copper	Cu	mg/kg	4	
Lead	Pb	mg/kg	0	
Molybdenum	Mo	mg/kg	0	
PQ index	-		17543	
CONTAMINATION				
Silicon	Si	mg/kg	2	
Potassium	K	mg/kg	0	
Sodium	Na	mg/kg	0	
Water	%		< 0.10	
OIL CONDITION				
Viscosity at 40°C	mm ² /s		330.56	
Viscosity at 100°C	mm ² /s		37.85	
Viscosity index	-		164	
Oxidation	A/cm		-	
ADDITIVES				
Calcium	Ca	mg/kg	0	
Magnesium	Mg	mg/kg	0	
Boron	B	mg/kg	1	
Zinc	Zn	mg/kg	2	
Phosphorus	P	mg/kg	49	
Barium	Ba	mg/kg	0	
Sulphur	S	mg/kg	3207	
ADDITIONAL TESTS				
Neutralisation number	mgKOH/g		< 0.01	

Bottle and Cap




Infrared Spectrum



Machine type:
 Manufacturer:
 Sample from:
 Oil brand name:

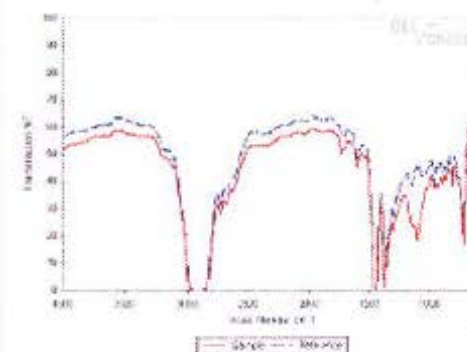
MPS 4750 B
 Pfeiffer
 Roller 1
 Shell Tivela S 680

ANALYSIS RESULTS			Current sample	Previous samples	
LAB NUMBER			1702098		
SAMPLE RATING					
Date tested			25.10.2010		
Date of sample taken			-		
Date of last oil change			-		
Top-up since change			-		
Operating hrs since change			-		
Total operating hrs			-		
Oil changed			-		
WEAR					
Iron	Fe	mg/kg	1		
Chrome	Cr	mg/kg	0		
Tin	Sn	mg/kg	0		
Aluminum	Al	mg/kg	0		
Nickel	Ni	mg/kg	0		
Copper	Cu	mg/kg	1		
Lead	Pb	mg/kg	0		
PQ index	-		OK		
CONTAMINATION					
Silicon	Si	mg/kg	2		
Potassium	K	mg/kg	1		
Sodium	Na	mg/kg	0		
Water K. F.	ppm		25		
OIL CONDITION					
Viscosity at 40°C	mm²/s		267.54		
Viscosity at 100°C	mm²/s		30.93		
Viscosity index	-		156		
Oxidation	A/cm		1		
ADDITIVES					
Calcium	Ca	mg/kg	15		
Magnesium	Mg	mg/kg	0		
Boron	B	mg/kg	29		
Zinc	Zn	mg/kg	48		
Phosphorus	P	mg/kg	369		
Barium	Ba	mg/kg	0		
Molybdenum	Mo	mg/kg	1		
Sulphur	S	% WL	1.12		

Bottle and Cap




Infrared Spectrum



Gearbox
Flender
Mobilgear 600 XP 320

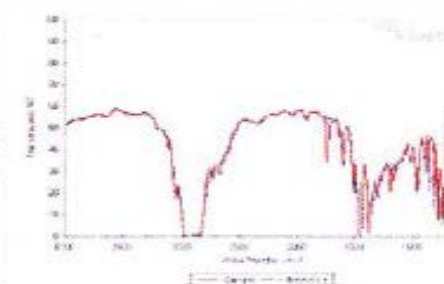
Machine type:
Manufacturer:
Oil brand name:

ANALYSIS RESULTS			Current sample	Previous samples	
LAB NUMBER			1702100		
SAMPLE RATING					
Date tested			16.07.2012		
Date of sample taken			11.07.2012		
Date of last oil change			-		
Top-up since change			-		
Operating hrs since change			8		
Total operating hrs			-		
Oil changed			-		
WEAR					
Iron	Fe	mg/kg	113		
Chrome	Cr	mg/kg	2		
Tin	Sn	mg/kg	0		
Aluminum	Al	mg/kg	1		
Nickel	Ni	mg/kg	0		
Copper	Cu	mg/kg	1		
Lead	Pb	mg/kg	0		
PQ index	-		138		
CONTAMINATION					
Silicon	Si	mg/kg	31		
Potassium	K	mg/kg	0		
Sodium	Na	mg/kg	0		
Water	%		< 0.10		
OIL CONDITION					
Viscosity at 40°C	mm²/s		309.54		
Viscosity at 100°C	mm²/s		33.33		
Viscosity index	-		150		
Oxidation	A/cm		2		
ADDITIVES					
Calcium	Ca	mg/kg	0		
Magnesium	Mg	mg/kg	0		
Boron	B	mg/kg	5		
Zinc	Zn	mg/kg	0		
Phosphorus	P	mg/kg	889		
Barium	Ba	mg/kg	0		
Molybdenum	Mo	mg/kg	0		
Sulphur	S	mg/kg	330		
ADDITIONAL TESTS					
Neutralisation number	mgKOH/g		0.60		
Cleanliness class	ISO 4406 (1999)		23/20/13		
A: >4µm = ISO >4µm	Particles/100ml		6641564		
B: >6µm = ISO >6µm	Particles/100ml		527324		
C: >14µm = ISO >14µm	Particles/100ml		6008		
D: >21µm	Particles/100ml		1335		
E: >38µm	Particles/100ml		0		
F: >70µm	Particles/100ml		0		
Cleanliness class	SAE AS 4059		> 12A		

Bottle and Cap







Infrared Spectrum



Machine type:
Manufacturer:
Oil brand name:
Oil quantity in system:

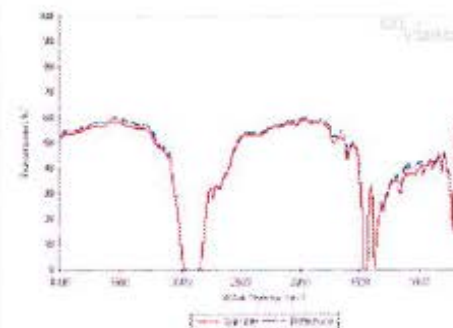
Gearbox
SEW
Mobil SHC 632
102.1

ANALYSIS RESULTS			Current sample	8 previous samples not shown			
LAB NUMBER			1702103	1702104	1702105	1702106	
SAMPLE RATING							
Date tested			19.09.2012	23.05.2012	11.01.2012	15.09.2011	
Date of sample taken			17.09.2012	22.05.2012	09.01.2012	-	
Date of last oil change			12.02.2003	12.02.2003	12.02.2003	12.02.2003	
Top-up since change			-	-	-	-	
Operating hrs since change		h	59681	57746	55781	53779	
Total operating hrs		h	211926	209991	208026	205974	
Oil changed			no	no	no	no	
WEAR							
Iron	Fe	mg/kg	38	37	35	33	
Chrome	Cr	mg/kg	0	0	0	0	
Tin	Sn	mg/kg	0	1	0	0	
Aluminum	Al	mg/kg	0	0	0	1	
Nickel	Ni	mg/kg	0	0	0	0	
Copper	Cu	mg/kg	2	2	2	2	
Lead	Pb	mg/kg	2	2	2	2	
PQ index	-		33	OK	35	OK	
CONTAMINATION							
Silicon	Si	mg/kg	0	0	1	1	
Potassium	K	mg/kg	3	0	1	1	
Sodium	Na	mg/kg	2	0	0	0	
Tungsten	W	mg/kg	-	2	-	-	
Water	%		< 0.10	< 0.10	< 0.10	< 0.10	
OIL CONDITION							
Viscosity at 40°C	mm²/s		240.00	241.85	240.84	240.31	
Viscosity at 100°C	mm²/s		19.67	19.79	20.05	19.72	
Viscosity index	-		94	94	96	94	
Oxidation	A/cm		1	1	1	1	
ADDITIVES							
Calcium	Ca	mg/kg	10	6	11	10	
Magnesium	Mg	mg/kg	0	0	0	0	
Boron	B	mg/kg	16	16	15	16	
Zinc	Zn	mg/kg	34	22	25	27	
Phosphorus	P	mg/kg	235	220	237	227	
Barium	Ba	mg/kg	0	0	0	0	
Molybdenum	Mo	mg/kg	2	0	1	0	
Sulphur	S	% Wt	1.25	1.31	1.31	1.12	
ADDITIONAL TESTS							
Neutralisation number	mgKOH/g		0.76	0.90	0.90	0.88	

Bottle and Cap





Infrared Spectrum



Machine type:
Manufacturer:
Oil brand name:
Oil quantity in system:

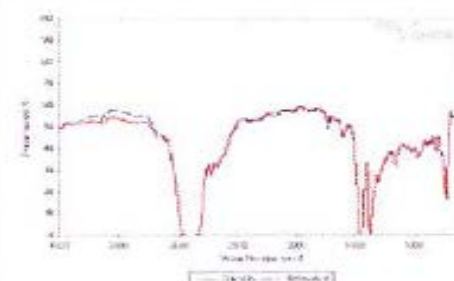
STK 200 T
Tacke (Renk)
Mobil Mobilgear 600 XP 220
1800 l

ANALYSIS RESULTS			Current sample	Previous samples
LAB NUMBER			1702124	1702125
SAMPLE RATING				
Date tested			16.09.2011	14.01.2011
Date of sample taken			08.09.2011	10.01.2011
Date of last oil change			-	-
Top-up since change			-	-
Operating hrs since change			h 1350	1260
Total operating hrs			h 1350	1260
Oil changed			no	no
WEAR				
Iron	Fe	mg/kg	2	0
Chrome	Cr	mg/kg	0	0
Tin	Sn	mg/kg	1	0
Aluminum	Al	mg/kg	0	0
Nickel	Ni	mg/kg	0	0
Copper	Cu	mg/kg	6	7
Lead	Pb	mg/kg	3	0
Molybdenum	Mo	mg/kg	0	0
PQ index	-		OK	OK
CONTAMINATION				
Silicon	Si	mg/kg	4	0
Potassium	K	mg/kg	0	2
Sodium	Na	mg/kg	5	0
Tungsten	W	mg/kg	1	-
Water	%		0.12	< 0.10
OIL CONDITION				
Viscosity at 40°C	mm²/s		45.23	46.75
Viscosity at 100°C	mm²/s		n/a	6.54
Viscosity index	-		n/a	87
Oxidation	A/cm		1	1
ADDITIVES				
Calcium	Ca	mg/kg	30	50
Magnesium	Mg	mg/kg	0	0
Boron	B	mg/kg	0	0
Zinc	Zn	mg/kg	274	256
Phosphorus	P	mg/kg	258	245
Barium	Ba	mg/kg	0	0
Sulphur	S	mg/kg	4424	4864
ADDITIONAL TESTS				
Cleanliness class	ISO 4406 (1999)		19/19/19	21/20/16
A: >4µm = ISO >4µm	Particles/100ml		370570	1576380
B: >6µm = ISO >6µm	Particles/100ml		338600	552000
C: >14µm = ISO >14µm	Particles/100ml		328150	49280
D: >21µm	Particles/100ml		326200	25910
E: >38µm	Particles/100ml		304510	150
F: >70µm	Particles/100ml		11880	30
Cleanliness class	SAE AS-4059		> 12C	12D

Bottle and Cap







Infrared Spectrum



Machine type:
 Manufacturer:
 Sample from:
 Oil brand name:
 Oil quantity in system:

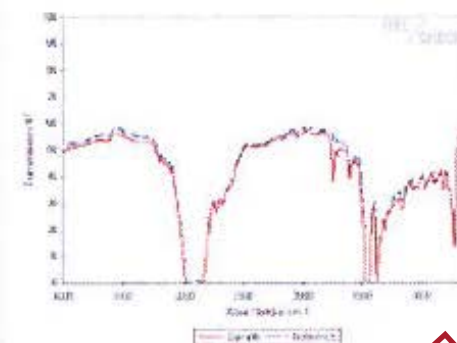
Not reported
 Not reported
 Hydraulic
 Esso Nuto H 46
 160

ANALYSIS RESULTS			Current sample	Previous samples		
LAB NUMBER			1702126	1702127	1702128	1702129
SAMPLE RATING						
Date tested			12.10.2012	08.08.2012	07.05.2012	05.01.2012
Date of sample taken			11.10.2012	07.08.2012	24.04.2012	03.01.2012
Date of last oil change			21.09.2006	21.09.2006	21.09.2006	21.09.2006
Top-up since change			-	-	-	-
Operating hrs since change			h 47391	45834	43781	41464
Total operating hrs			-	-	-	-
Oil changed			no	no	no	no
WEAR						
Iron	Fe	mg/kg	51	55	57	42
Chrome	Cr	mg/kg	0	0	0	0
Tin	Sn	mg/kg	0	0	0	0
Aluminum	Al	mg/kg	14	15	14	11
Nickel	Ni	mg/kg	0	0	0	0
Copper	Cu	mg/kg	2	2	2	2
Lead	Pb	mg/kg	0	0	0	0
Molybdenum	Mo	mg/kg	33	34	35	32
Manganese	Mn	mg/kg	1	-	-	-
PQ index	-		OK	OK	OK	OK
CONTAMINATION						
Silicon	Si	mg/kg	20	20	22	16
Potassium	K	mg/kg	0	2	0	0
Sodium	Na	mg/kg	0	0	0	0
Water	%		< 0.10	< 0.10	< 0.10	< 0.10
OIL CONDITION						
Viscosity at 40°C	mm²/s		456.08	462.17	461.67	459.18
Viscosity at 100°C	mm²/s		30.43	31.98	30.05	30.89
Viscosity index	-		96	100	94	97
Oxidation	A/cm		4	5	2	2
ADDITIVES						
Calcium	Ca	mg/kg	32	32	35	30
Magnesium	Mg	mg/kg	3	0	1	1
Boron	B	mg/kg	16	15	15	14
Zinc	Zn	mg/kg	30	31	32	29
Phosphorus	P	mg/kg	324	324	355	292
Barium	Ba	mg/kg	32	33	36	26
Sulphur	S	% Wt	1.60	1.47	1.59	1.28

Bottle and Cap



Infrared Spectrum



Humbold
Plain bearing
Fuchs Gearmaster CLP 460
150 l

Manufacturer:
Sample from:
Oil brand name:
Oil quantity in system:



LafargeHolcim