



# Ethylene Gas Blower

Energy Savings and Lubrication Improvement

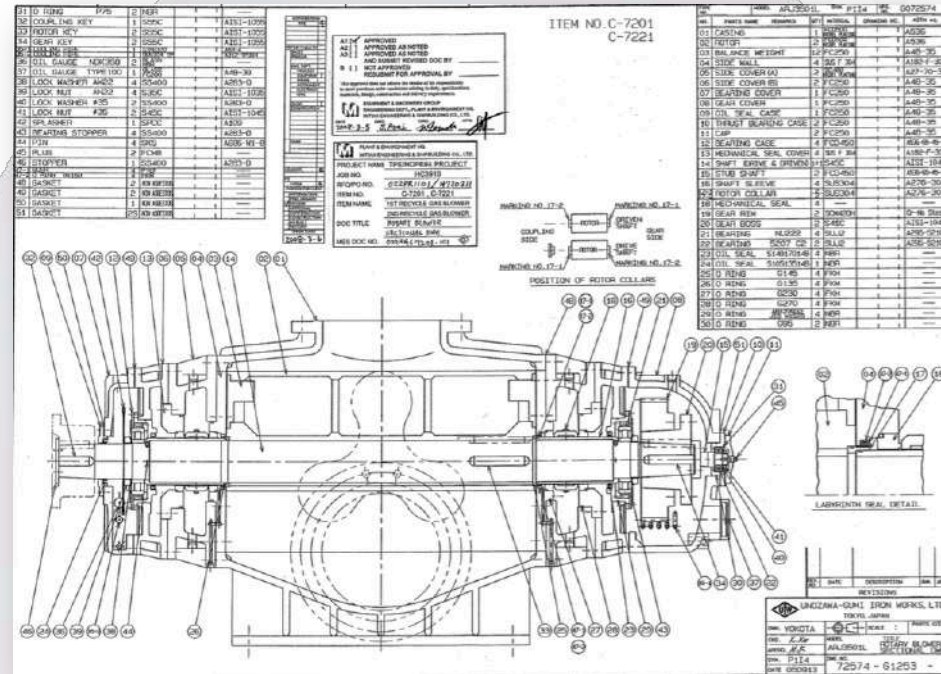
*THE PERFORMANCE OIL THAT OUTPERFORMS\**

# ENERGY SAVINGS & LUBRICATIONS IMPROVEMENT

## The Equipment Information



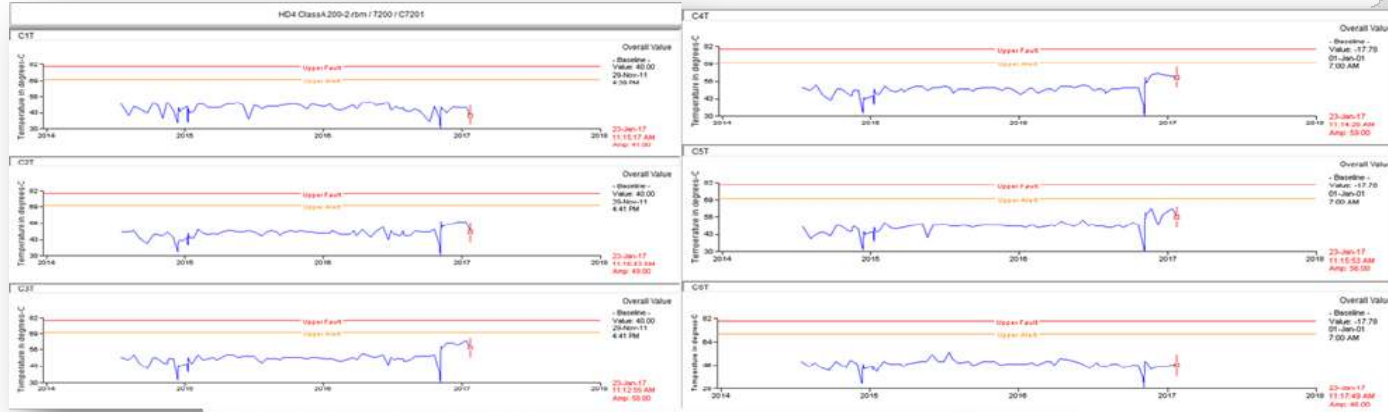
Machine: Recycle Gas Blower  
Driven by: ABB Motor, 380 kW(239 Amp)  
Serviced: N/A hrs  
Oil Capacity: 18 Liters  
Lube Oil Type: Shell Turbo T68



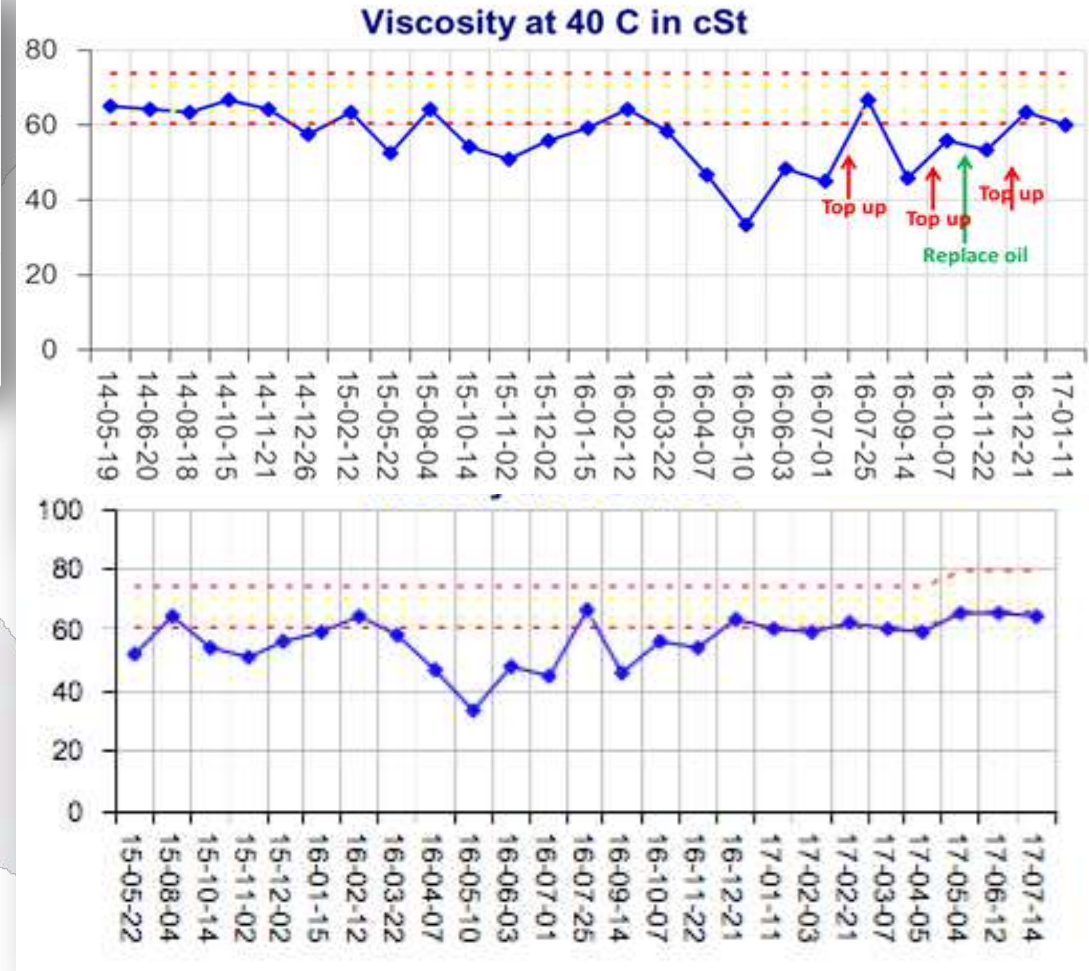
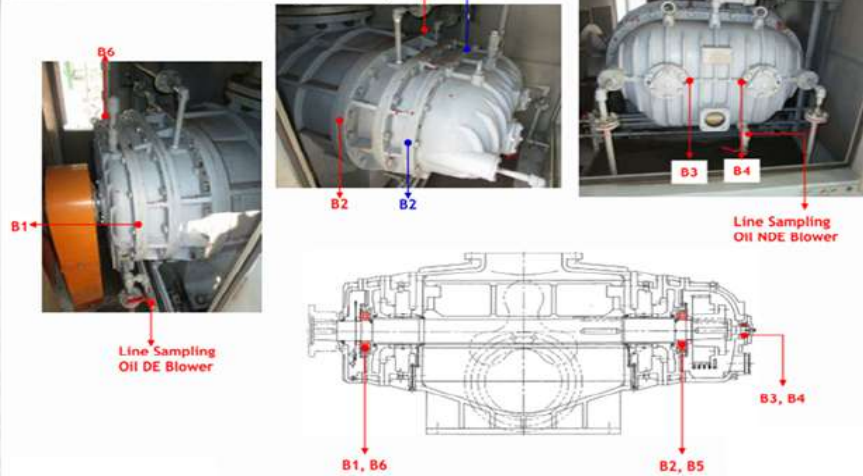
Manufacturer: Unozawa-Gumi Iron Work, Ltd.  
Volt: 690V / 3Phase3Wire  
Energy Cost: 3.50 THB/Unit  
Oil Change Interval: 6 Months but online Top-up every 2 weeks  
Issue: Oil Dilution and Extremely Viscosity Drop

# ENERGY SAVINGS & LUBRICATIONS IMPROVEMENT

## The Equipment Information



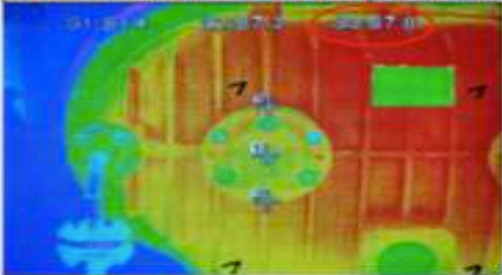
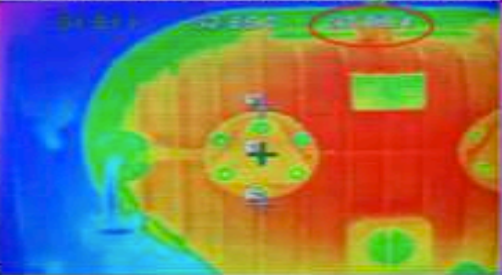
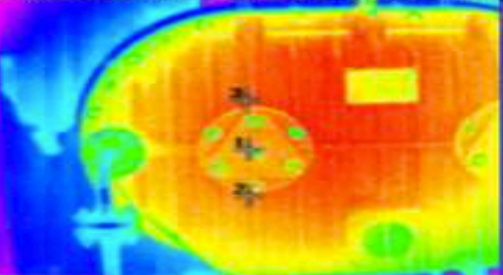
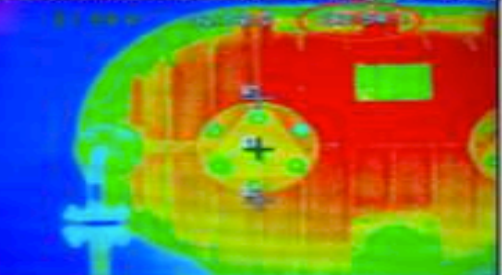
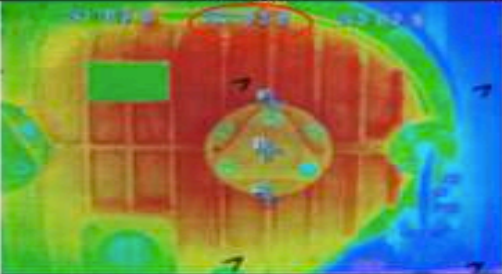
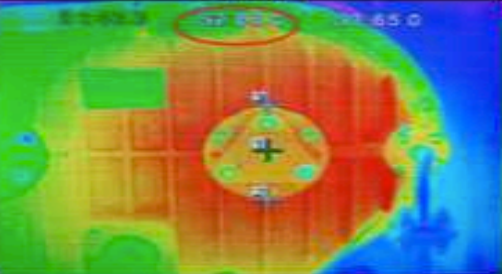
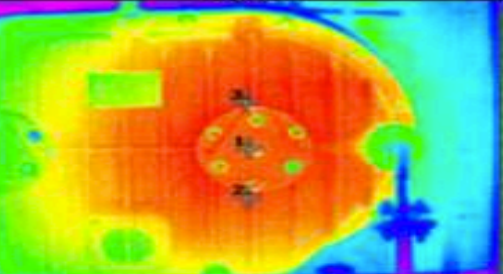
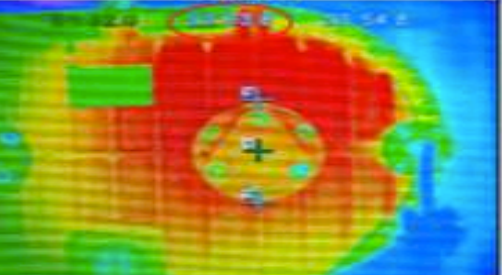
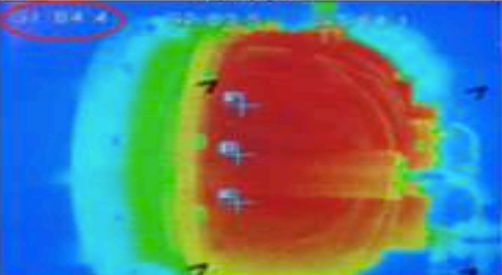
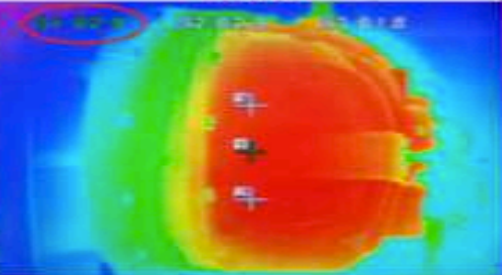
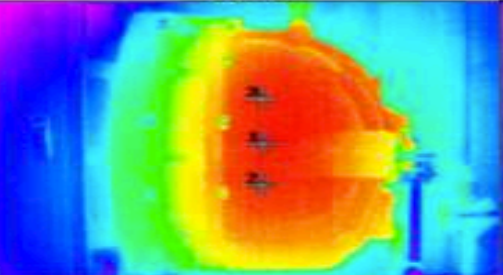
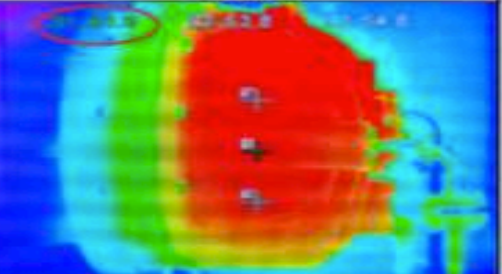
HD4-Section 200 C-7201,C-7221





# Thermaography Inspection Reports

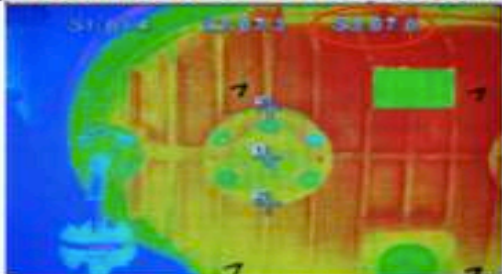
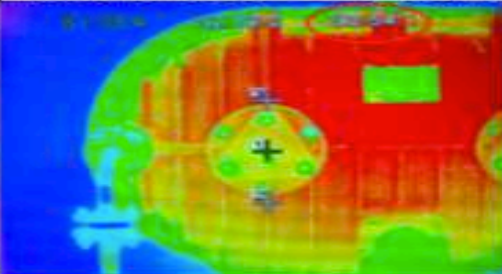
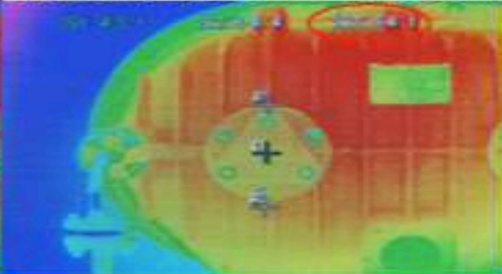
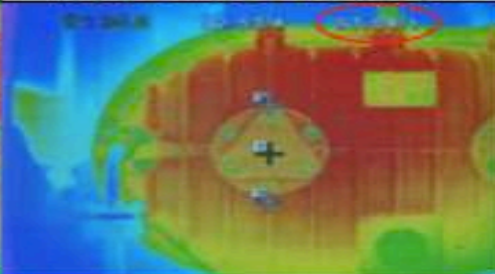
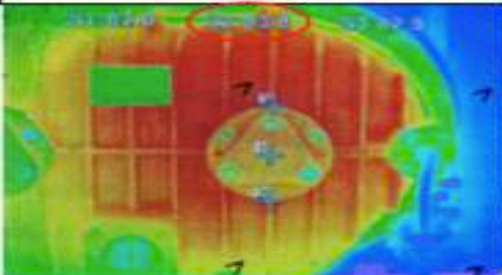
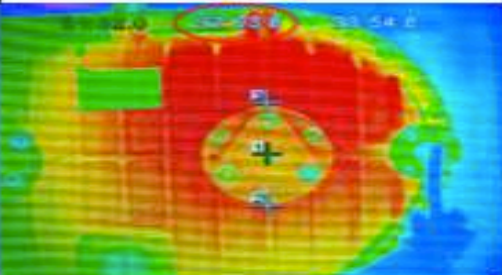
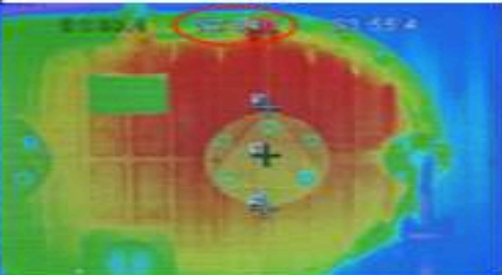
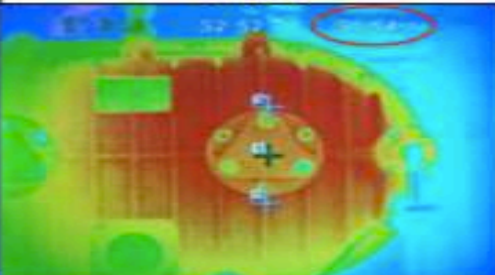
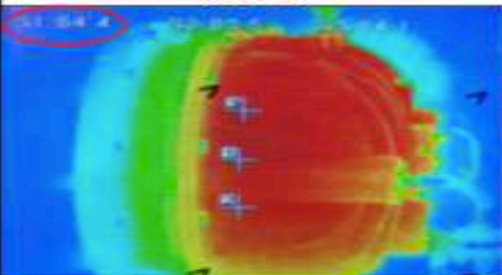
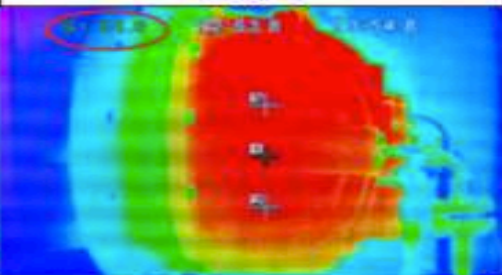
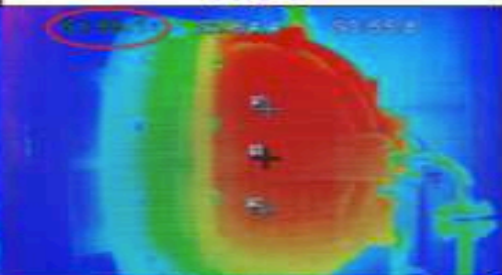
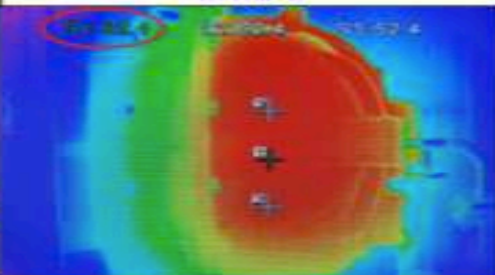
**Company:** Thai Polyethylene (HDPE4)  
**Equipment:** Ethylene Gas Blower 1st Stage, C-7201 (Unozawa, 380 kW)  
**Lube Oils:** Before - Shell Turbo T68  
 After - Royal Purple Synfilm NGL 68

Temperatures & Reduction	Before 720 hrs   11-04-17   02:00 pm	After 01 400 hrs   04-05-17   02:00 pm	After 02 1,500 hrs   23-06-17   04:00 pm	After 03 2,480 hrs   03-08-17   02:00 pm
<b>Non Drive End Side_01</b>  Temp.Drop After 01: 2.2°C Temp.Drop After 02: 21.3°C Temp.Drop After 03: 13.5°C	 67.6°C	 65.4°C	 46.3°C	 54.1°C
<b>Non Drive End Side_02</b>  Temp.Up After 01: 1.2°C Temp.Drop After 02: 17.5°C Temp.Drop After 03: 10.0°C	 63.8°C	 65.0°C	 46.3°C	 53.8°C
<b>Non Drive End Side_03</b>  Temp.Drop After 01: 1.5°C Temp.Drop After 02: 18.1°C Temp.Drop After 03: 9.6°C	 64.4°C	 62.9°C	 46.3°C	 54.8°C



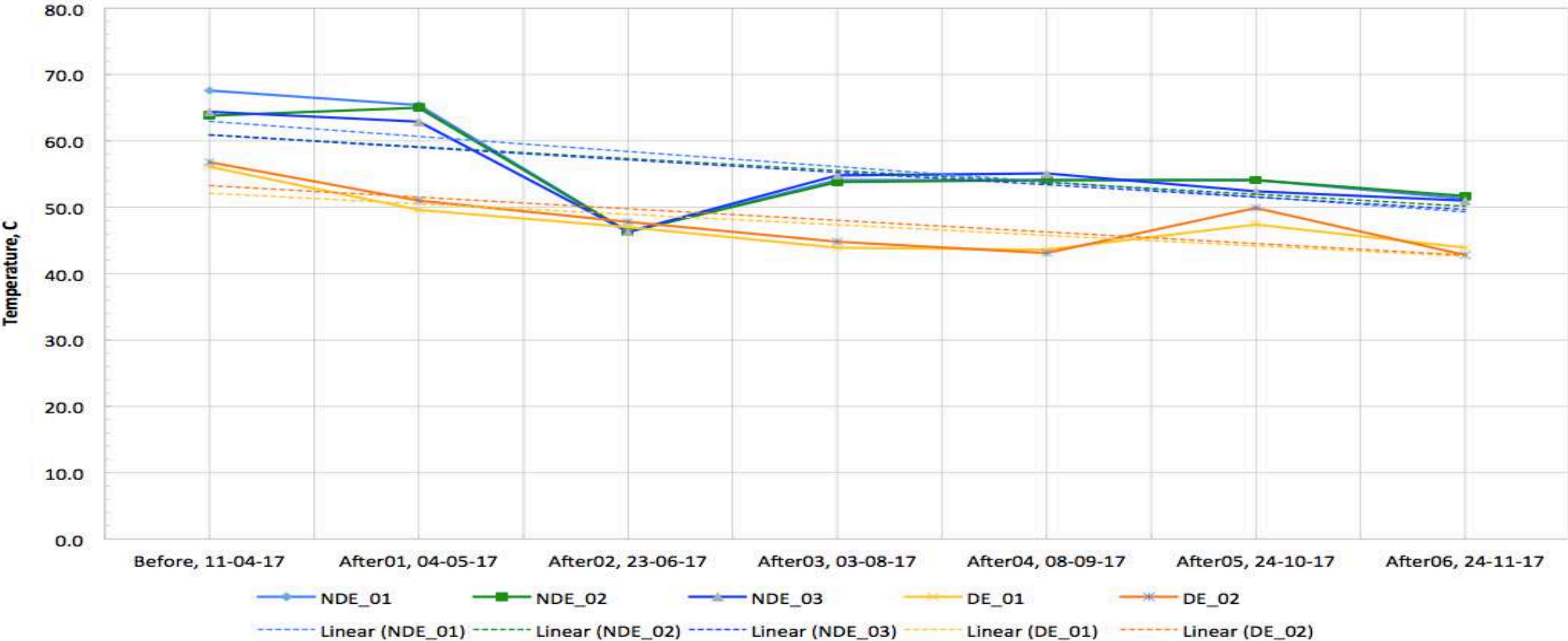
# Thermaography Inspection Reports

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**Equipment:** Ethylene Gas Blower 1st Stage, C-7201 (Unozawa, 380 kW)  
**Lube Oils:** Before - Shell Turbo T68  
 After - Royal Purple Synfilm NGL 68

Temperatures & Reduction	Before	After 03	After 04	After 05
	720 hrs   11-04-17   02:00 pm	2,480 hrs   03-08-17   02:00 pm	3,300 hrs   08-09-17   10:00 am	4,300   24-09-17   02:00 pm
<b>Non Drive End Side_01</b>				
Temp.Drop After 03: 13.5°C Temp.Drop After 04: 13.5°C Temp.Drop After 05: 13.5°C	67.6°C	54.1°C	54.1°C	54.1°C
<b>Non Drive End Side_02</b>				
Temp.Drop After 03: 10.0°C Temp.Drop After 04: 9.7°C Temp.Drop After 05: 9.7°C	63.8°C	53.8°C	54.1°C	54.1°C
<b>Non Drive End Side_03</b>				
Temp.Drop After 03: 9.6°C Temp.Drop After 04: 9.3°C Temp.Drop After 05: 12.0°C	64.4°C	54.8°C	55.1°C	52.4°C

**Company:** Thai Polyethylene (HDPE4)  
**Equipment:** Ethylene Gas Blower 1st Stage, C-7201 (Unozawa, 380 kW)  
**Lube Oils:** Before - Shell Turbo T68  
After - Royal Purple Synfilm NGL 68

Temp. Reduction Trend\_C7201



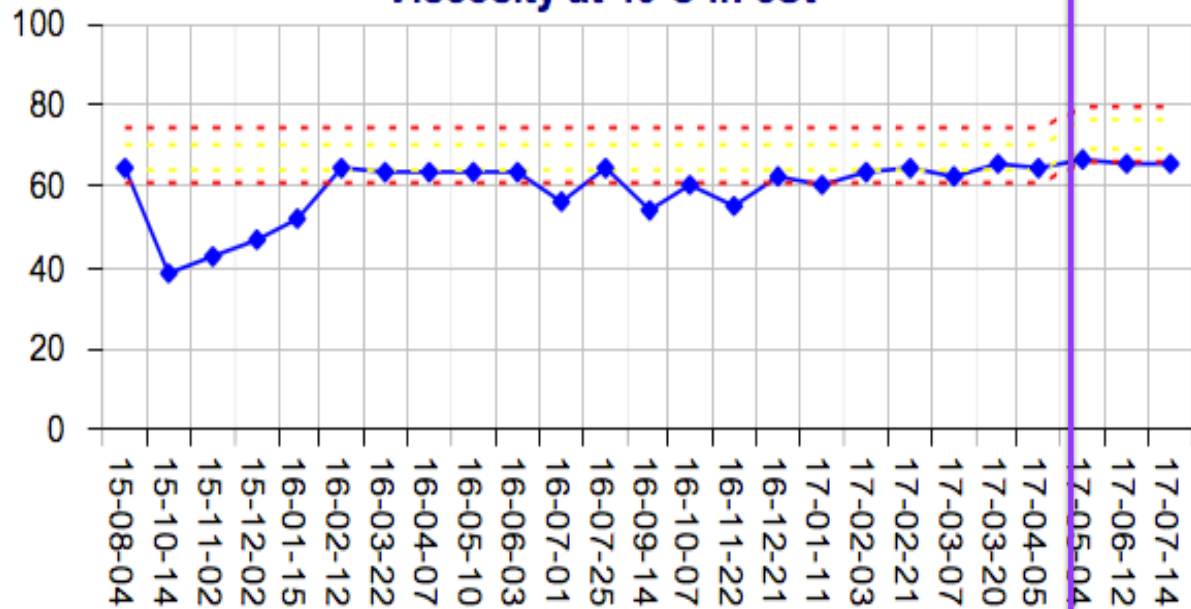


# ENERGY SAVINGS & LUBRICATIONS IMPROVEMENT

## Synfilm NGL 68

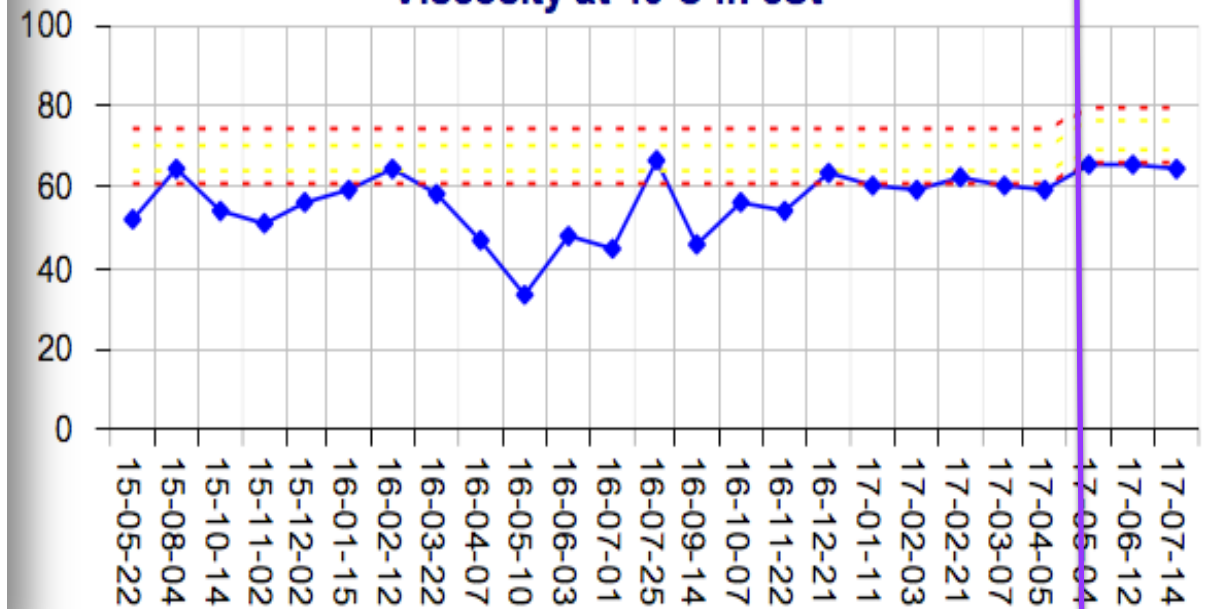
### DE SIDE

Viscosity at 40 C in cSt



### NDE SIDE

Viscosity at 40 C in cSt





Tough Jobs  
Require **Tough Solution.**

*THE PERFORMANCE OIL THAT OUTPERFORMS\**