

Preventative Maintenance and Combustion Report

18335990953

Submitter Name:

Date Sent on Device:

Michael Jensen | michael.g.jensen@cdncontrols.ca

Oct 12, 2023 8:39:17 AM MST

PREVENTATIVE MAINTENANCE AND COMBUSTION

 Date:
 Oct 11, 2023

 Job #
 2310-2277

 Company
 Murphy

Contact:Cody LightbodyPhone:5872334173

Email: cody_lightbody@murphyoilcorp.com

 Area:
 Tupper West

 LSD:
 7-15-78-18W6

Equipment Information

Make: NWP

Type: Line heater
Serial: NWP-1899.01

A# 573461 **CRN #** P9408.213

Vessel Diameter (in inches)42Vessel Length (in feets)16Vessel MediumGlycol

Fire Tubes

Number: 1

Diameter (in inches): 12
Length (in feets): 15
Flux 10000

Rating 942000 btu/hr Configuration: Horizontal

Condition of Fire Tube:

Stack Diameter:

Stack Height:

Stack Condition:

Good

Arrestor Make:

Wenco

Arrestor Style: Aluminum
Arrestor Size: 24

Arrestor Condition: Good and clean

Arrestor Position	Front
Burner Information	
Make:	ACL
Size:	11/2"
Type:	Venturi
Orifice:	11/64"
Configuration	Good
Nozzle	ACL
Condition:	Good
Length Gas Connect to Tip	32"
Airplate	ACL
Pilot Information	
Mixer:	ACL
Size:	1/2"
Nozzle:	ACL
Orifice:	#72
Condition:	Good
Control	
BMS	ACL 5100
Serial #:	51-12/24-072210-02
Voltage:	24
Flame Fail:	24 ACL 5100
Flame Fail: Flame Signal	24 ACL 5100 ACL 5100
Flame Fail: Flame Signal Main Regulator:	24 ACL 5100 ACL 5100 Fisher 627R
Flame Fail: Flame Signal Main Regulator: Pilot Regulator	24 ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR
Flame Fail: Flame Signal Main Regulator: Pilot Regulator Temp Control	24 ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR Kimray HT12
Flame Fail: Flame Signal Main Regulator: Pilot Regulator Temp Control High Temp Control:	24 ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR Kimray HT12 CCS 6900TE14
Flame Fail: Flame Signal Main Regulator: Pilot Regulator Temp Control High Temp Control: Temp Cont. Valve	24 ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR Kimray HT12 CCS 6900TE14 Fisher 119
Flame Fail: Flame Signal Main Regulator: Pilot Regulator Temp Control High Temp Control: Temp Cont. Valve Esd Control Valve:	ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR Kimray HT12 CCS 6900TE14 Fisher 119 ACL ASSV-1 POC
Flame Fail: Flame Signal Main Regulator: Pilot Regulator Temp Control High Temp Control: Temp Cont. Valve Esd Control Valve: Fuel Gas Low Pressure Switch	ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR Kimray HT12 CCS 6900TE14 Fisher 119 ACL ASSV-1 POC UE12
Flame Fail: Flame Signal Main Regulator: Pilot Regulator Temp Control High Temp Control: Temp Cont. Valve Esd Control Valve: Fuel Gas Low Pressure Switch Fuel Gas High Pressure Switch	24 ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR Kimray HT12 CCS 6900TE14 Fisher 119 ACL ASSV-1 POC UE12 UE12
Flame Fail: Flame Signal Main Regulator: Pilot Regulator Temp Control High Temp Control: Temp Cont. Valve Esd Control Valve: Fuel Gas Low Pressure Switch Fuel Gas High Pressure Switch Pilot Solenoid:	ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR Kimray HT12 CCS 6900TE14 Fisher 119 ACL ASSV-1 POC UE12 UE12 ACL
Flame Fail: Flame Signal Main Regulator: Pilot Regulator Temp Control High Temp Control: Temp Cont. Valve Esd Control Valve: Fuel Gas Low Pressure Switch Fuel Gas High Pressure Switch Pilot Solenoid: Main Solenoid:	ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR Kimray HT12 CCS 6900TE14 Fisher 119 ACL ASSV-1 POC UE12 UE12 ACL ACL
Flame Fail: Flame Signal Main Regulator: Pilot Regulator Temp Control High Temp Control: Temp Cont. Valve Esd Control Valve: Fuel Gas Low Pressure Switch Fuel Gas High Pressure Switch Pilot Solenoid:	ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR Kimray HT12 CCS 6900TE14 Fisher 119 ACL ASSV-1 POC UE12 UE12 ACL
Flame Fail: Flame Signal Main Regulator: Pilot Regulator Temp Control High Temp Control: Temp Cont. Valve Esd Control Valve: Fuel Gas Low Pressure Switch Fuel Gas High Pressure Switch Pilot Solenoid: Main Solenoid:	ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR Kimray HT12 CCS 6900TE14 Fisher 119 ACL ASSV-1 POC UE12 UE12 ACL ACL
Flame Fail: Flame Signal Main Regulator: Pilot Regulator Temp Control High Temp Control: Temp Cont. Valve Esd Control Valve: Fuel Gas Low Pressure Switch Fuel Gas High Pressure Switch Pilot Solenoid: Main Solenoid: Low Level Switch	ACL 5100 ACL 5100 Fisher 627R Fisher 67CFR Kimray HT12 CCS 6900TE14 Fisher 119 ACL ASSV-1 POC UE12 UE12 ACL ACL

Pilot Shut off valve:Ball valveMain Test Fire Valve:Ball valveMain Shut off Valve:Ball valveCalibration Isolation Valves:No

Y - Strainer: Yes

Ignition Coil Location:In BMS panelTC Head Make/Model:Kimray HT12

Thermowell Size 1"
Level Switch Connect Size 2"
Burner Housing Connection 3/4"

Burner Info

NEW REPEATABLE SECTION 1 OF 1

Burner Pressure	10
Pilot Pressure	5
Flue Temp. F	552.3
02%	6.7
CO ppm	33
CO2%	9
Ex Air %:	32.2
Draft:	0
Efficiency%	76.6

Service Comments

Arrived on site and received a permit from the operator. Started by isolating the fuel gas and removing the burners. Cleaned and inspected the nozzles and orifices. Inspected the ignition rod and module wiring. Cleaned the flame arrestor. Placed burners back in housing and started the heater. Checked all shutdowns including any pressure switches, temperature controls, flame fails and level indicating devices. Filled out a combustion report including taking pictures of the unit, gathering the information off of the unit for the report and taking combustion readings.

Everything is cleaning and working as it should.

Field Approval

CSA Field Inspection Completed: NO

Combustion Technician: Mike Jensen

Email: michael.g.jensen@cdncontrols.ca

Pictures

DESCRIPTIONS

LSD

PHOTOS



Overall line heater



Equipment tag







Fuel train







BMS panel nameplate







Pilot orifice clean



Flame arrestor tag



Flame arrestor clean



Combustion readings

Combustion readings





Stack bolt

SHUT DOWN TEST REPORT

 Date:
 2023-10-11

 Job #
 2310-2277

 Company
 Murphy

Contact:Cody LightbodyPhone:5872334173

Email: cody_lightbody@murphyoilcorp.com

 Area:
 Tupper West

 LSD:
 7-15-78-18W6

Equipment Information

Make: NWP

Type: Line heater

Device 1

Select Low Flow Type Low Level Shutdown

MakeSORModel1510BPneumatic or ElectricElectricTest ResultPass

Photo



Device 2

High Temp SD

Make CCS Model 6900TE14

Set Points: Found (in C) 90 Set Points: Left (in C) 90 Test Result Pass

Photo



Device 3

Temp Control

MakeKimrayModelHT12Set Points: Found (in C)50Set Points: Left (in C)50Test ResultPass

Photo



Device 4

Fuel Gas High Pressure SW:

MakeUEModel12Set Points: Found (in Psi)15Set Points: Left (in Psi)15Test ResultPass

Photo

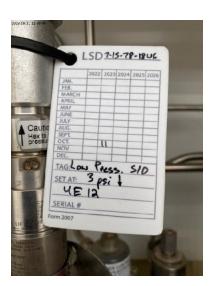


Device 5

Fuel Gas Low Pressure SW:

MakeUEModel12Set Points: Found (in Psi)3Set Points: Left (in Psi)3Test ResultPass

Photo



Device 6

Flame Fail:

MakeACLModel5100Pilot Reading:: Found100Pilot Reading: Left100Test ResultPass

Photo



Combustion Technician Mike Jensen

Email michael.g.jensen@cdncontrols.ca

FLAME ARRESTOR TEST REPORT

 Date:
 2023-10-11

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 2310-2277

 Company
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Contact: Cody Lightbody
Phone: 5872334173

Email: cody_lightbody@murphyoilcorp.com

 Area:
 Tupper West

 LSD:
 7-15-78-18W6

Equipment Information

Make: NWP

Type: Line heater

Burner Housing and Flame Arrestor

Flame Arrestor Test in accordance with API RP 12N: Recommended Practice for Operation, Maintenance and Testing of FireBox Flame Arrestors

Type Aluminum Make Wenco Model SB24-12H Serial Number: 0410-423

Arrestors 1

Position Front

Condition Good and clean

Size (in inches) 24

Photos (Maximum 10 photos







Combustion Technician Email

Mike Jensen michael.g.jensen@cdncontrols.ca