SCADA Data Log Report

This document contains all SCADA data for all stations on Line 6B from Griffith to Sarnia.
The document lists three events between approximately 15:00/25 to 07:00/26.
The three events are:

- **Event #1 – Scheduled Shutdown**
- **Event #2 – Scheduled Start Up with resulting Shutdown**
- **Event #3 – Attempt to Start Up with resulting Shutdown**

The commands and alarms associated with each of these three events are chronologically listed below with an explanation of each.

The attached SCADA data covers the entire time frame from July 25th to July 27th. This data can be referenced for detailed information on pressures and unit statuses etc.
Note: the Griffith data includes Line 6A information as indicated by HSP, HLD, FLW, UDENS, SDENS. This data is not applicable to this report and cannot be removed as a subset of the full information package.

SCADA Data

L6B Griffith July 25 to July 27.txt
This data also includes Line 6A information as indicated by HSP, HLD, FLW, UDENS, SDENS.

L6B Laporte July 25 to July 27.txt

L6B Niles July 25 to July 27.txt

L6B Mendon July 25 to July 27.txt

L6B Marshall July 25 to July 27.txt

L6B Stockbridge July 25 to July 27.txt

L6B Howell July 25 to July 27.txt

L6B Marysville July 25 to July 27.txt

L6B Sarnia July 25 to July 27.txt

Each event below is listed with:

1. **Event date and time**
2. **Command and Alarms explanation**

Event #1 – Scheduled Shutdown 14:55 July 25/10 to 15:05 July 25/10

Prior to shutdown on July 25/10 Line 6B was running in a steady state manner at about 1975 m3/hr. An injection was occurring at Griffith and a delivery was occurring at Stockbridge. A scheduled shutdown was initiated at 14:55 mst.

Event #1 SCADA Commands and Alarms July 25/10 - 14:54 to 15:06

Red text explains the alarm or command.
"console5" indicates an operator initiated command.
"System" indicates a SCADA system initiated command.
All other text strings are alarms.

2010-07-25 14:55:26. console5: line 6 Griffith: stop unit U-3
Initiating line 6B shutdown. Unit at Griffith station is stopped.

2010-07-25 14:55:32. OPR S4 L6 Griffith Unit U-3 is in sequence OFF
Alarm indicates unit valves sequencing after the stop command is sent.

2010-07-25 14:56:15. console5: line 6 Griffith: stop unit U-2
Initiating line 6B shutdown. Unit at Griffith station is stopped.

2010-07-25 14:56:43. console5: line 6 La Porte: stop unit U-1
In continuation of the line shutdown unit is stopped.

2010-07-25 14:57:01. console5: line 6 Stockbridge: drive holding setpoint to 200
Setpoint sent to delivery location.

2010-07-25 14:57:33. OPR S4 L6 Griffith Injection Valve 6-SSV-3(75) is in Travel CLOSED
Injection valve at lead station is travelling closed.

2010-07-25 14:57:37. console5: line 6 Niles: stop unit U-1
Unit at Niles is stopped.

2010-07-25 14:57:50. console5: line 6: Mendon to Mendon: drive suction setpoint to pressure -5 psi
Setpoint to pressure control valve is reduced 5 psi relative to actual suction pressure.

2010-07-25 14:57:54. console5: line 6: Marshall to Marshall: drive suction setpoint to pressure -5 psi
Setpoint to pressure control valve is reduced 5 psi relative to actual suction pressure.
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2010-07-25 14:58:23. console5: line 6 Mendon: stop unit U-1
Unit at Mendon is stopped.

2010-07-25 14:58:38. OPR S2 L6 Griffith Unit U-3 is now OFF (Hot Unit)

Alarm indicates unit valves have completed sequencing after the stop command was sent.

2010-07-25 14:58:42. DRV S6 L6 Marshall LPM?: Invalid pressure(s) - LPM may not be able to detect overpressure

Alarm due to one or more pressures at Marshall showing 0. The Line Pressure Monitor program detects the 0 pressure and assumes it is invalid.

2010-07-25 14:58:42. OPR S4 L6 Marshall Low Suction Pressure

Alarm occurs when suction pressure drops below 25 psi.

2010-07-25 14:58:42. OPR S4 L6 Marshall Unit U-2 is in sequence OFF

Line pressure monitor (PLC at station) stops unit due to the low suction condition. The low suction cascade shutdown limit is 25 psi.

2010-07-25 14:58:47. DRV S2 L6 Marshall LPM: Resumed normal operating condition

Alarm occurs when pressures increased above 0.

2010-07-25 14:58:47. OPR S4 L6 Marshall Low Suction Pressure alarm CLEARED

Alarm occurs when suction pressure increased above 25 psi.

2010-07-25 14:58:55. console5: line 6 Marshall: stop unit U-2

Unit at Marshall is stopped.

2010-07-25 14:58:57. OPR S4 L6 Marshall Low Suction Pressure

Alarm occurred due to the suction pressure dropping below 25 psi.

2010-07-25 14:59:04. console5: line 6 Stockbridge: drive holding setpoint to 250

Setpoint sent to delivery location.

2010-07-25 14:59:17. console5: line 6: close sectionalizing valve at milepost 576.93

Operator sent the command to close the sectionalizing valve. This valve is routinely closed for a schedule line 6b shut down

2010-07-25 14:59:17. system : line 6: stop line from Griffith to Mendon

Alarm occurred as a response to the command sent for the milepost 576.93 valve to be closed. The stop line command was sent from the sectionalizing valve to the lead station. However, all units upstream of the valve are off line. This system command is sent by the Line Protection Monitor program.

2010-07-25 14:59:25. OPR S7 L6 M.P. 576.93 Sectionalizing Valve 576.93-6-V is now in Travel to CLOSE

Indicates valve is travelling closed.

2010-07-25 14:59:27. DRV S6 L6 Marshall LPM?: Invalid pressure(s) - LPM may not be able to detect overpressure

This alarm occurred due to one or more pressures at Marshall showing 0. The Line Pressure Monitor detects the 0 pressure and assumes it is invalid.

2010-07-25 14:59:32. DRV S2 L6 Marshall   LPM: Resumed normal operating condition
Alarm occurred because the pressures increased above 0.

2010-07-25 14:59:32. OPR S4 L6 Stockbridge Delivery Valve 650.63-6/17-XV is in Travel CLOSED
Command to close the delivery valve.

2010-07-25 14:59:42. DRV S6 L6 Marshall   LPM?: Invalid pressure(s) - LPM may not be able to detect overpressure
This alarm occurred due to one or more pressures at Marshall showing 0. The Line Pressure Monitor detects the 0 pressure and assumes it is invalid.

2010-07-25 14:59:47. DRV S2 L6 Marshall   LPM: Resumed normal operating condition
Alarm occurs when pressures increased above 0.

2010-07-25 15:00:17. DRV S6 L6 Marshall   LPM?: Invalid pressure(s) - LPM may not be able to detect overpressure
This alarm occurred due to one or more pressures at Marshall showing 0. The Line Pressure Monitor detects the 0 pressure and assumes it is invalid.

2010-07-25 15:00:18. OPR S4 L6 Griffith   Injection Valve 6-SSV-3(75) is CLOSED
Alarm indicates that the injection valve at Griffith fully closed.

2010-07-25 15:00:25. OPR S6 L6 M.P. 576.93 Scanning to Confirm that Sect. Valve 576.93-6-V is still in Travel
SCADA initiates this alarm when a sectionalizing valve has been in travel for more 60 seconds.

2010-07-25 15:00:29. OPR S7 L6 M.P. 576.93 STOPPING LINE from Griffith to Mendon - Sect Valve 576.93-6-V over 60 seconds.
Alarm occurred as a response to the valve at milepost 576.93 still being in travel closed. No action take, all units upstream of this valve were previously stopped.

2010-07-25 15:00:29.   system : line 6: stop line from Griffith to Mendon
Alarm occurred as a response to the command sent for the milepost 576.93 valve to be closed. The stop line command was sent from the sectionalizing valve to the lead station. However, all units upstream of the valve are off line. This system command is sent by the Line Protection Monitor program.

2010-07-25 15:00:37. DRV S2 L6 Marshall   LPM: Resumed normal operating condition
Alarm occurs when pressures increased above 0.

2010-07-25 15:01:17. DRV S6 L6 Marshall   LPM?: Invalid pressure(s) - LPM may not be able to detect overpressure
This alarm occurred due to one or more pressures at Marshall showing 0. The Line Pressure Monitor detects the 0 pressure and assumes it is invalid.

2010-07-25 15:01:27. DRV S2 L6 Marshall LPM: Resumed normal operating condition
Alarm occurred because the pressures increased above 0.

2010-07-25 15:01:37. DRV S6 L6 Marshall LPM?: Invalid pressure(s) - LPM may not be able to detect overpressure
This alarm occurred due to one or more pressures at Marshall showing 0. The Line Pressure Monitor detects the 0 pressure and assumes it is invalid.

2010-07-25 15:01:44. OPR S4 L6 Niles Discharge Valve 6-SDV-1 is in Travel CLOSED
To prepare for the arrival of an upstream pig in the proximity of Niles station the discharge valve is being closed to bypass the station.

2010-07-25 15:01:51. OPR S4 L6 Mendon Discharge pressure transmitter disparity alarm
This alarm occurs when the pressure readback is different between the redundant transmitters. This is typical when a station discharge valve is closed due to the transmitter location being on either side of the sectionalizing valve at MP 576.93.

2010-07-25 15:01:54. OPR S4 L6 Niles Suction Valve 6-SSV-1 is in Travel CLOSED
To prepare for the arrival of an upstream pig in the proximity of Niles station the suction valve is being closed to bypass the station.

2010-07-25 15:02:02. DRV S2 L6 Marshall LPM: Resumed normal operating condition
Alarm occurred because the pressures increased above 0.

2010-07-25 15:02:11. OPR S6 L6 M.P. 576.93 Scanning to Confirm that Sect. Valve 576.93-6-V is Closed
Alarm confirming that the sectionalizing valve is fully closed.

2010-07-25 15:02:15. OPR S7 L6 M.P. 576.93 STOPPING LINE from Griffith to Mendon - Sect Valve 576.93-6-V Closed
Alarm occurred as a response to the valve at milepost 576.93 being fully closed. However, all units upstream of the valve are already off line.

2010-07-25 15:02:15. system : line 6: stop line from Griffith to Mendon
Alarm occurred confirming a stop line has been sent.

2010-07-25 15:02:17. OPR S4 L6 Stockbridge Delivery Valve 650.63-6/17-XV is CLOSED
Alarm confirming the delivery valve is closed.

2010-07-25 15:02:27. DRV S6 L6 Marshall LPM?: Invalid pressure(s) - LPM may not be able to detect overpressure
This alarm occurred due to one or more pressures at Marshall showing 0. The Line Pressure Monitor detects the 0 pressure and assumes it is invalid.

2010-07-25 15:02:58. 7..MBS S6 Line 6 Alarms 5 Minute ALARM in section GT->MR OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 5 minute imbalance indicating the imbalance has gone below the threshold over a 5 minute period.

2010-07-25 15:04:28. OPR S4 L6 Niles Station Isolated
Alarm indicates the station is isolated.

2010-07-25 15:04:28. OPR S4 L6 Niles Suction Valve 6-SSV-1 is CLOSED
Suction valve has closed.

2010-07-25 15:06:50. 7..MBS S6 Line 6 Alarms 5 Minute ALARM in section GT->MR CLEARED
This alarm indicates that the 5 minute MBS imbalance is no longer below the threshold.

Line 6B remained shut down until pipeline start up at July 26/10 – 01:04 mst.

Event #2 Scheduled Start Up 01:04 July 26/10 to 02:37 July 26/10

Upon start up, the pipeline was scheduled to pump from Griffith through to Marysville. There were no deliveries at Stockbridge. Niles was scheduled to be bypassed due to a pig in close proximity upstream of Niles station.

Event #2 Commands and Alarms – 01:00 July 26/10 to 02:37 July 26/10

Red text explains the alarm or command.
"console5" indicates an operator initiated command.
"System" indicates a SCADA system initiated command.
All other text strings are alarms.

2010-07-26 01:00:39. console5: line 6 Stockbridge: open valve 650.64-6-V
The operator sent an open command to the block valve at Stockbridge in preparation for a line start up.

2010-07-26 01:00:42. OPR S4 L6 Marysville Delivery Valve 152-DELV-1 is in Travel OPEN
The delivery valve at Marysville is opening in preparation to receive oil upon the line start up.

2010-07-26 01:00:43. console5: line 6: open sectionalizing valve at milepost 576.93
Operator sent command to open sectionalizing valve in preparation for a line start up.

2010-07-26 01:00:47. OPR S4 L6 Stockbridge Block Valve 650.64-6-V is in Travel OPEN
Alarm indicates the block valve is now in travel open.

2010-07-26 01:00:51. OPR S4 L6 M.P. 576.93 Sectionalizing Valve 576.93-6-V is now in Travel to OPEN
Alarm indicates the sectionalizing valve is now traveling open.

2010-07-26 01:00:52. OPR S4 L6 Stockbridge Low Suction Pressure alarm CLEARED
Alarm indicates suction pressure increased above 25 psi

2010-07-26 01:01:00. OPR S4 L6 Stockbridge Suction pressure transmitter disparity alarm CLEARED
Alarm indicates the redundant suction transmitters are now within the same pressure parameters.

2010-07-26 01:01:06. console5: line 6: open sectionalizing valve at milepost 632.89
Command to open sectionalizing valve in preparation for a line start up.

2010-07-26 01:01:12. OPR S4 L6 Mendon Discharge pressure transmitter disparity alarm CLEARED
Alarm indicates the redundant discharge transmitters are now within the same predetermined pressure parameters.

2010-07-26 01:02:19. OPR S7 L6 M.P. 532.74 Section Valve 532.74-6-V Communications Failed
Indicates communication to the valve has failed.

2010-07-26 01:02:51. OPR S7 L6 M.P. 532.74 Section Valve 532.74-6-V Communication Failure alarm CLEARED
Indicates communication to the valve is restored.

2010-07-26 01:03:03. OPR S4 L6 Marysville Delivery Valve 152-DELV-1 is OPEN
Indicates delivery valve is open.

2010-07-26 01:03:03.   console5: line 6: drive line to commout limits from Mendon to Marshall
Command to enable commout limits sent.

2010-07-26 01:03:07. OPR S2 L6 Marshall   Commout Limits Enabled
Indicates commout limits are enabled at the station.

2010-07-26 01:03:11. OPR S2 L6 Mendon   Commout Limits Enabled
Indicates commout limits are enabled at the station.

2010-07-26 01:03:12. OPR S4 L6 Stockbridge Block Valve 650.64-6-V is OPEN
Indicates the block valve is open.

2010-07-26 01:03:37.   console5: line 6 Stockbridge: drive suction setpoint to 100
Setpoint sent to pressure control valve.

2010-07-26 01:03:37. OPR S6 L6 M.P. 576.93 Sectionalizing Valve 576.93-6-V is now OPEN
Indicates sectionalizing valve is open.

2010-07-26 01:04:39. OPR S4 L6 Griffith   Low Suction Pressure alarm CLEARED
Indicates suction pressure is above 25 psi.

2010-07-26 01:04:47.   console5: line 6 Griffith: start unit U-2
Command to start unit.

2010-07-26 01:04:54. OPR S4 L6 Griffith   Unit U-2 is in sequence ON
Indicates unit valves are sequencing after start command is sent.

2010-07-26 01:05:28.   console5: line 6 La Porte: drive discharge setpoint to 298
Setpoint command to the pressure control valve.

2010-07-26 01:05:38. OPR S4 L6 La Porte   Low Suction Pressure alarm CLEARED
Indicates suction pressure is above 25 psi.

2010-07-26 01:05:55.   console5: line 6 Naperville: drive suction setpoint to 65
Setpoint command to the pressure control valve.

2010-07-26 01:06:01. DRV S2 L6 West Sarnia LPM: Resumed normal operating condition
Indicates Line Pressure Monitor was enabled and returned to a normal state.

2010-07-26 01:06:31.   console5: line 6 Mendon: drive suction setpoint to 75
Setpoint command to the pressure control valve.

2010-07-26 01:06:37.   console5: line 6 La Porte: drive suction setpoint to 75
Setpoint command to the pressure control valve.

2010-07-26 01:06:53.   console5: line 6 La Porte: start unit U-1
Command to start unit.

2010-07-26 01:07:11. OPR S4 L6 Niles   Discharge pressure transmitter disparity alarm CLEARED
Indicates the redundant discharge transmitters are now within the same predetermined pressure parameters.

2010-07-26 01:07:49. OPR S2 L6 Griffith   Unit U-2 is ON
Indicates the unit valves have completed sequencing.

2010-07-26 01:07:51. OPR S4 L6 Niles   Discharge pressure transmitter disparity alarm
This alarm occurs when the redundant transmitters are different by a predetermined amount. This is typical when a station discharge valve is closed due to the transmitter location being on either side of the valve.

2010-07-26 01:07:54. DRV S2 L6 West Sarnia LPM0: Holding > SRW by 3 psi. Discharge < Inforce
Indicates the holding pressure at the delivery location has exceeded the suction remote warning value by 3 psi.

2010-07-26 01:07:54.   system : line 6 Howell: drive discharge setpoint to 143
System setpoint command to the pressure control valve based on discharge pressure.

2010-07-26 01:07:54. DRV S6 L6 West Sarnia LPM*: Drove Disc SetPt from 144 to Inforce 143 psi at Howell
Indicates the value that Line Pressure Monitor drove the discharge setpoint to compensate for the Holding > SRW by 3 psi over limit pressure at the delivery location.

2010-07-26 01:08:33. DRV S2 L6 West Sarnia LPM: Resumed normal operating condition
Indicates the pressure at the delivery location has been reduced to below the high limit.

2010-07-26 01:08:45.   console5: line 6 La Porte: drive discharge setpoint to 348
Setpoint command to pressure control valve.

2010-07-26 01:09:02.   console5: line 6 La Porte: drive suction setpoint to 60

Setpoint command to pressure control valve.

2010-07-26 01:09:08. console5: line 6 Griffith: drive discharge setpoint to 391
Setpoint command to pressure control valve.

2010-07-26 01:09:24. console5: line 6 La Porte: drive discharge setpoint to 398
Setpoint command to pressure control valve.

2010-07-26 01:09:33. console5: line 6 Griffith: drive discharge setpoint to 441
Setpoint command to pressure control valve.

2010-07-26 01:10:07. console5: line 6 Griffith: start unit U-3
Unit is started.

2010-07-26 01:11:14. console5: line 6 La Porte: drive discharge setpoint to 448
Setpoint command to pressure control valve.

2010-07-26 01:11:50. console5: line 6 Mendon: start unit U-4
Unit is started.

2010-07-26 01:12:11. 5..MBS S6 Line 6 Alarms 5 Minute ALARM in section GT->MR
OCCURRED
This is an alarm generated from the material balance system (leak detection).
This is a 5 minute imbalance indicating the imbalance has gone below the
threshold over a 5 minute period.

2010-07-26 01:12:14. console5: line 6 Howell: drive discharge setpoint to 373
Setpoint command to pressure control valve.

2010-07-26 01:12:26. OPR S7 L6 M.P. 533.21 Section Valve 533.21-6-V
Communications Failed
Indicates communication to the valve has failed.

2010-07-26 01:13:03. console5: line 6 Mendon: drive suction setpoint to 60
Setpoint command to pressure control valve.

2010-07-26 01:13:46. OPR S7 L6 M.P. 533.21 Section Valve 533.21-6-V
Communication Failure alarm CLEARED
Indicates communication to the valve has been restored.

2010-07-26 01:13:52. console5: line 6 Griffith: drive discharge setpoint to 471
Setpoint command to pressure control valve.

2010-07-26 01:14:35. console5: line 6 La Porte: drive discharge setpoint to 508
Setpoint command to pressure control valve.

2010-07-26 01:14:47. console5: line 6 La Porte: drive discharge setpoint to 498
Setpoint command to pressure control valve.

2010-07-26 01:14:51. console5: line 6 Griffith: drive discharge setpoint to 491
Setpoint command to pressure control valve.

2010-07-26 01:16:00. console5: line 6 La Porte: drive discharge setpoint to 548
Setpoint command to pressure control valve.

2010-07-26 01:16:44. 0..MBS S6 Line 6 Alarms 20 Minute ALARM in section GT->MR OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 20 minute imbalance indicating the imbalance has gone below the threshold over a 20 minute period.

2010-07-26 01:17:06. console5: line 6 Griffith: drive discharge setpoint to 511
Setpoint command to pressure control valve.

2010-07-26 01:20:15. DRV S2 L6 Marshall LPM: Resumed normal operating condition
Indicates pressure has returned to acceptable limits.

2010-07-26 01:22:11. 5..MBS S6 Line 6 Alarms 5 Minute ALARM in section GT->MR Exceeded 10 minute limit
This is an alarm generated from the material balance system (leak detection). This is a 5 minute imbalance indicating the imbalance has gone below the threshold over a 5 minute period and has been in this state for over 10 minutes.

2010-07-26 01:24:34. console5: line 6 Mendon: start unit U-1
Command to start unit.

2010-07-26 01:25:20. DRV S2 L6 West Sarnia LPM0: Holding > SRW by 2 psi. Discharge < Inforce
Alarm indicates the holding pressure at the delivery location has exceeded the suction remote warning by 2 psi.

2010-07-26 01:25:20. system : line 6 Howell: drive discharge setpoint to 144
The pipeline control system sent a command to the setpoint which controls the pressure control valve based on discharge pressure. This was done due to the high SRW at the delivery location.

2010-07-26 01:25:20. DRV S6 L6 West Sarnia LPM*: Drove Disc SetPt from 373 to Inforce 144 psi at Howell
Alarm indicates the value that Line Pressure Monitor drove the discharge setpoint to compensate for the over limit pressure at the delivery location.

2010-07-26 01:25:30. console5: line 6 Mendon: stop unit U-4
Command to stop unit.

2010-07-26 01:25:43. OPR S4 L6 Mendon Low Suction Pressure
Indicates that the suction pressure is below 25psi.

2010-07-26 01:25:48. OPR S4 L6 Mendon Low Suction Pressure alarm CLEARED
Indicates that suction pressure is above 25 psi

2010-07-26 01:26:09. console5: line 6 Griffith: drive discharge setpoint to 411
Setpoint command to pressure control valve.

2010-07-26 01:26:13. console5: line 6 Mendon: stop unit U-1
Command to stop unit.

2010-07-26 01:26:30. console5: line 6 La Porte: drive discharge setpoint to 478
Setpoint command to pressure control valve.

2010-07-26 01:26:32. console5: line 6 Griffith: stop unit U-3
Command to stop unit.

2010-07-26 01:26:35. DRV S2 L6 West Sarnia LPM: Resumed normal operating condition
Indicates the pressure at the delivery location has been reduced to below the high limit.

2010-07-26 01:26:44. 0..MBS S6 Line 6 Alarms 20 Minute ALARM in section GT->MR Exceeded 10 minute limit
This is an alarm generated from the material balance system (leak detection). This is a 20 minute imbalance indicating the imbalance has gone below the threshold over a 20 minute period and has been in this state for more than 10 minutes.

2010-07-26 01:26:54. 9..MBS S6 Line 6 Alarms 5 Minute ALARM in section MR->RW OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 5 minute imbalance indicating the imbalance has gone below the threshold over a 5 minute period.

2010-07-26 01:27:04. console5: line 6 Mendon: start unit U-1
Command to start unit.

2010-07-26 01:27:12. console5: line 6 Mendon: drive suction setpoint to 75
Setpoint command to pressure control valve.

2010-07-26 01:28:51. console5: line 6 Mendon: drive suction setpoint to 60
Setpoint command to pressure control valve.

2010-07-26 01:29:06. console5: line 6 La Porte: drive discharge setpoint to 548
Setpoint command to pressure control valve.

2010-07-26 01:29:25. DRV S2 L6 West Sarnia LPM0: Holding > SRW by 3 psi. Discharge < Inforce
Indicates the holding pressure at the delivery location has exceeded the suction remote warning by 3 psi.

2010-07-26 01:29:25. DRV S6 L6 West Sarnia LPM*: Drove Disc SetPt from 144 to Inforce 143 psi at Howell
Alarm indicates the value that Line Pressure Monitor drove the discharge setpoint to compensate for the over limit pressure at the delivery location.

2010-07-26 01:29:25. system : line 6 Howell: drive discharge setpoint to 143

The pipeline control system sent a command to the setpoint which controls the pressure control valve based on discharge pressure. This was done due to the high SRW at the delivery location.

2010-07-26 01:29:42. DRV S2 L6 West Sarnia LPM: Resumed normal operating condition
Indicates pressure at the delivery location has been reduced to below the high limit.

2010-07-26 01:29:45. DRV S2 L6 West Sarnia LPM0: Holding > SRW by 4 psi. Discharge < Inforce
Indicates the holding pressure at the delivery location has exceeded the suction remote warning by 4 psi. This drives the upstream discharge setpoint down to keep pressures within limits.

2010-07-26 01:29:45. DRV S6 L6 West Sarnia LPM*: Drove Disc SetPt from 143 to Inforce 142 psi at Howell
Indicates the value that Line Pressure Monitor drove the discharge setpoint to compensate for the over limit pressure at the delivery location.

2010-07-26 01:29:45. system : line 6 Howell: drive discharge setpoint to 142
The pipeline control system sent a command to the setpoint which controls the pressure control valve based on discharge pressure. This was done due to the high SRW at the delivery location.

2010-07-26 01:29:50. DRV S2 L6 West Sarnia LPM: Resumed normal operating condition
Indicates the pressure at the delivery location has been reduced to below the high limit.

2010-07-26 01:30:49. console5: line 6 Griffith: start unit U-3
Command to start unit.

2010-07-26 01:30:58. console5: line 6 Griffith: drive discharge setpoint to 471
Setpoint command to pressure control valve.

2010-07-26 01:31:19. console5: line 6 Mendon: drive suction setpoint to 50
Setpoint command to pressure control valve.

2010-07-26 01:31:28. 9..MBS S6 Line 6 Alarms 2 Hour ALARM in section GT->MR OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 2 hour imbalance indicating the imbalance has gone below the threshold over a 2 hour period.

2010-07-26 01:36:53. console5: line 6 Griffith: drive discharge setpoint to 511
Setpoint command to pressure control valve.

2010-07-26 01:36:54. 9..MBS S6 Line 6 Alarms 5 Minute ALARM in section MR->RW Exceeded 10 minute limit

This is an alarm generated from the material balance system (leak detection). This is a 5 minute imbalance indicating the imbalance has gone below the threshold over a 5 minute period and has been in this state for over 10 minutes.

2010-07-26 01:36:54. 9..MBS S6 Line 6 Alarms 20 Minute ALARM in section MR->RW Exceeded 10 minute limit
This is an alarm generated from the material balance system (leak detection). This is a 20 minute imbalance indicating the imbalance has gone below the threshold over a 20 minute period and has been in this state for more than 10 minutes.

2010-07-26 01:41:28. 9..MBS S6 Line 6 Alarms 2 Hour ALARM in section GT->MR Exceeded 10 minute limit
This is an alarm generated from the material balance system (leak detection). This is a 2 hour imbalance indicating the imbalance has gone below the threshold over a 2 hour period and has been in this state for more than 10 minutes.

2010-07-26 01:41:36. DRV S2 L6 West Sarnia LPM0: Holding > SRW by 6 psi. Discharge < Inforce
Indicates the holding pressure at the delivery location has exceeded the suction remote warning by 6 psi. This drives the upstream discharge setpoint down to keep pressures within limits.

2010-07-26 01:41:36. DRV S6 L6 West Sarnia LPM*: Drove Disc SetPt from 142 to Inforce 141 psi at Howell
Indicates the value that Line Pressure Monitor drove the discharge setpoint to compensate for the over limit pressure at the delivery location.

2010-07-26 01:41:36.   system : line 6 Howell: drive discharge setpoint to 141
The pipeline control system sent a command to the setpoint which controls the pressure control valve based on discharge pressure. This was done due to the Holding > SRW by 6 psi at the delivery location.

2010-07-26 01:41:43. DRV S2 L6 West Sarnia LPM: Resumed normal operating condition
Alarm indicates the pressure at the delivery location has been reduced to below the high limit.

2010-07-26 01:42:17.   console5: line 6 Mendon: drive suction setpoint to 45
Setpoint command to pressure control valve.

2010-07-26 01:47:07. 3..MBS S6 Line 6 Alarms 2 Hour ALARM in section MR->RW OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 2 hour imbalance indicating the imbalance has gone below the threshold over a 2 hour period.

2010-07-26 01:57:07. 3..MBS S6 Line 6 Alarms 2 Hour ALARM in section MR->RW Exceeded 10 minute limit

This is an alarm generated from the material balance system (leak detection). This is a 2 hour imbalance indicating the imbalance has gone below the threshold over a 2 hour period and has been in this state for more than 10 minutes.

2010-07-26 02:00:19. console5: line 6 Griffith: stop unit U-3
Command to stop unit.

2010-07-26 02:00:47. console5: line 6 Griffith: stop unit U-2
Command to stop unit.

2010-07-26 02:02:02. console5: line 6 La Porte: stop unit U-1
Command to stop unit.

2010-07-26 02:02:58. console5: line 6 Mendon: stop unit U-1
Command to stop unit.

2010-07-26 02:03:15. console5: line 6: close sectionalizing valve at milepost 576.93
Command to close sectionalizing valve. This valve is routinely closed for a schedule line 6b shut down

2010-07-26 02:03:15. system : line 6: stop line from Griffith to Mendon
Alarm occurred as a response to the command sent for the milepost 576.93 valve to be closed. The stop line command was sent from the sectionalizing valve to the lead station. However, all units upstream of the valve are off line.

2010-07-26 02:03:20. OPR S7 L6 M.P. 576.93 Sectionalizing Valve 576.93-6-V is now in Travel to CLOSE
Indicates valve travelling closed.

2010-07-26 02:03:33. console5: line 6 Stockbridge: close valve 650.64-6-V
Command to close valve.

2010-07-26 02:03:39. OPR S4 L6 Stockbridge Block Valve 650.64-6-V is in Travel CLOSED
Indicates block valve travelling closed.

2010-07-26 02:04:22. DRV S6 L6 Marshall LPM?: Invalid pressure(s) - LPM may not be able to detect overpressure
This alarm occurred due to one or more pressures at Marshall showing 0. The Line Pressure Monitor detects the 0 pressure and assumes it is invalid.

2010-07-26 02:04:24. OPR S7 L6 M.P. 576.93 STOPPING LINE from Griffith to Mendon - Sect Valve 576.93-6-V over 60 seconds.
Alarm occurred as a response to the valve at milepost 576.93 still being in travel closed. However, all units upstream of the valve are already off line.

2010-07-26 02:04:24. system : line 6: stop line from Griffith to Mendon
Alarm occurred confirming a stop line has been sent due to the valve in travel closed.

2010-07-26 02:04:42. DRV S2 L6 Marshall LPM: Resumed normal operating condition
Alarm occurred because the pressures increased above 0.

2010-07-26 02:04:52. DRV S6 L6 Marshall LPM?: Invalid pressure(s) - LPM may not be able to detect overpressure
This alarm occurred due to one or more pressures at Marshall showing 0. The Line Pressure Monitor detects the 0 pressure and assumes it is invalid.

2010-07-26 02:05:51. OPR S4 L6 Mendon Discharge pressure transmitter disparity alarm
This alarm occurs when the redundant transmitters are different by a predetermined amount. This is typical when a station discharge valve is closed due to the transmitter location being on either side of the valve.

2010-07-26 02:05:59. OPR S4 L6 Niles Discharge pressure transmitter disparity alarm CLEARED
Indicates the redundant discharge transmitters are now within the same pressure parameters.

2010-07-26 02:06:06. OPR S4 L6 Stockbridge Block Valve 650.64-6-V is CLOSED
Indicates the Stockbridge block valve is closed.

2010-07-26 02:06:06. OPR S2 L6 Mendon Unit U-1 is now OFF (Hot Unit)
Indicates unit valves have completed sequencing after the stop command was sent.

2010-07-26 02:06:11. OPR S6 L6 M.P. 576.93 Scanning to Confirm that Sect. Valve 576.93-6-V is Closed
Alarm confirming sectionalizing valve is closed.

2010-07-26 02:06:15. OPR S7 L6 M.P. 576.93 STOPPING LINE from Griffith to Mendon - Sect Valve 576.93-6-V Closed
Alarm occurred as a response to the valve at milepost 576.93 being closed. However, all units upstream of the valve are already off line.

2010-07-26 02:06:15. system : line 6: stop line from Griffith to Mendon
Alarm occurred confirming a stop line has been sent due to the valve in travel closed.

2010-07-26 02:06:51. OPR S4 L6 Marysville Delivery Valve 152-DELV-1 is in Travel CLOSED
Indicates valve travelling closed.

2010-07-26 02:07:06. OPR S4 L6 Stockbridge Suction pressure transmitter disparity alarm
Indicates the redundant suction transmitters are not within the same pressure parameters.

2010-07-26 02:07:08. OPR S4 L6 Niles Discharge pressure transmitter disparity alarm

This alarm occurs when the redundant transmitters are different by a predetermined amount. This is typical when a station discharge valve is closed due to the transmitter location being on either side of the valve.

2010-07-26 02:08:51. 2..MBS S6 Line 6 Alarms 5 Minute ALARM in section MR->RW CLEARED
This alarm indicates that the 5 minute MBS imbalance is no longer below the threshold.

2010-07-26 02:08:54. 5..MBS S6 Line 6 Alarms 5 Minute ALARM in section MR->RW CLEARED
This alarm indicates that the 5 minute MBS imbalance is no longer below the threshold.

2010-07-26 02:09:11. OPR S4 L6 Marysville Delivery Valve 152-DELV-1 is CLOSED
Indicates the Delivery valve is now closed.

2010-07-26 02:10:23. OPR S7 L6 M.P. 533.21 Section Valve 533.21-6-V Communications Failed
Alarm indicates the communication to the valve has failed. This means the status of the valve cannot be read.

2010-07-26 02:10:50. 6..MBS S6 Line 6 Alarms 5 Minute ALARM in section GT->MR CLEARED
This alarm indicates that the 5 minute MBS imbalance is no longer below the threshold.

2010-07-26 02:10:55. 0..MBS S6 Line 6 Alarms 5 Minute ALARM in section GT->MR CLEARED
This alarm indicates that the 5 minute MBS imbalance is no longer below the threshold.

2010-07-26 02:11:09. OPR S4 L6 Stockbridge Low Suction Pressure
Indicates suction pressure is below 25 psi

2010-07-26 02:11:23. OPR S7 L6 M.P. 533.21 Section Valve 533.21-6-V Communication Failure alarm CLEARED
Indicates communication to valve is restored.

2010-07-26 02:18:54. 5..MBS S6 Line 6 Alarms 5 Minute ALARM in section MR->RW CLEARED
This alarm indicates that the 5 minute MBS imbalance is no longer below the threshold.

2010-07-26 02:18:59. OPR S7 L6 M.P. 533.21 Section Valve 533.21-6-V Communications Failed
Indicates communication to valve has failed.

2010-07-26 02:19:33. OPR S7 L6 M.P. 533.21 Section Valve 533.21-6-V Communication Failure alarm CLEARED
Indicates communication to valve is restored.

2010-07-26 02:20:55. 0..MBS S6 Line 6 Alarms 5 Minute ALARM in section GT->MR CLEARED
This alarm indicates that the 20 minute MBS imbalance is no longer below the threshold.

2010-07-26 02:21:38. OPR S7 L6 M.P. 532.74 Section Valve 532.74-6-V Communications Failed
Indicates communication to valve has failed.

2010-07-26 02:21:58. 3..MBS S6 Line 6 Alarms 20 Minute ALARM in section MR->RW CLEARED
This alarm indicates that the 20 minute MBS imbalance is no longer below the threshold.

2010-07-26 02:22:03. 8..MBS S6 Line 6 Alarms 20 Minute ALARM in section MR->RW CLEARED
This alarm indicates that the 20 minute MBS imbalance is no longer below the threshold.

2010-07-26 02:22:14. OPR S7 L6 M.P. 532.74 Section Valve 532.74-6-V Communication Failure alarm CLEARED
Indicates communication to valve is restored.

2010-07-26 02:26:57. 9..MBS S6 Line 6 Alarms 20 Minute ALARM in section GT->MR CLEARED
This alarm indicates that the 20 minute MBS imbalance is no longer below the threshold.

2010-07-26 02:27:05. 5..MBS S6 Line 6 Alarms 20 Minute ALARM in section GT->MR CLEARED
This alarm indicates that the 20 minute MBS imbalance is no longer below the threshold.

2010-07-26 02:31:44. OPR S7 L6 M.P. 533.21 Section Valve 533.21-6-V Communications Failed
Alarm indicates the communication to the valve has failed. This means the status of the valve cannot be read.

2010-07-26 02:31:50. OPR S7 L6 M.P. 533.21 Section Valve 533.21-6-V Communication Failure alarm CLEARED
Alarm indicates the communication to the valve has been restored and the true status can now be read.

2010-07-26 02:32:03. 8..MBS S6 Line 6 Alarms 20 Minute ALARM in section MR->RW CLEARED
This alarm indicates that the 20 minute MBS imbalance is no longer below the threshold.

2010-07-26 02:37:05. 5..MBS S6 Line 6 Alarms 20 Minute ALARM in section GT->MR CLEARED
This alarm indicates that the 20 minute MBS imbalance is no longer below the threshold.

Event #3 Start Up 04:08 July 26/10 to 05:55 July 26/10

Event #3 Start Up Commands and Alarms 04:08 July 26/10 to 05:55 July 26/10
Red text explains the alarm or command.
"console5" indicates an operator initiated command.
"System" indicates a SCADA system initiated command.
All other text strings are alarms.

2010-07-26 04:08:55. OPR S4 L6 Marysville Delivery Valve 152-DELV-1 is in Travel OPEN
Alarm indicates the Delivery valve is now in travel open.

2010-07-26 04:09:14. console5: line 6 Stockbridge: open valve 650.64-6-V
Operator sent command to open the Stockbridge block valve.

2010-07-26 04:09:23. console5: line 6: open sectionalizing valve at milepost 576.93
Operator sent command to open the sectionalizing valve.

2010-07-26 04:09:25. OPR S4 L6 Stockbridge Block Valve 650.64-6-V is in Travel OPEN
Alarm indicates the block valve is now in travel open.

2010-07-26 04:09:28. OPR S4 L6 Stockbridge Low Suction Pressure alarm CLEARED
Alarm cleared after the suction pressure went above 25 psi.

2010-07-26 04:09:28. OPR S4 L6 Stockbridge Suction pressure transmitter disparity alarm CLEARED
Alarm indicates the redundant suction transmitters are now within the same pressure parameters.

2010-07-26 04:09:30. OPR S4 L6 M.P. 576.93 Sectionalizing Valve 576.93-6-V is now in Travel to OPEN
Confirmation of the command to open being received. Valve is in travel open.

2010-07-26 04:09:55. OPR S4 L6 Mendon   Discharge pressure transmitter disparity alarm CLEARED
Alarm indicates the redundant discharge transmitters are now within the same pressure parameters.

2010-07-26 04:11:15. OPR S4 L6 Marysville Delivery Valve 152-DELV-1 is OPEN
Alarm indicates the delivery valve is open.

2010-07-26 04:11:18. OPR S4 L6 Niles   Discharge pressure transmitter disparity alarm CLEARED
Alarm indicates the redundant discharge transmitters are now within the same pressure parameters.

2010-07-26 04:11:45. OPR S4 L6 Stockbridge Block Valve 650.64-6-V is OPEN
Alarm indicates the Stockbridge block valve is open.

2010-07-26 04:12:12. OPR S4 L6 Niles   Discharge pressure transmitter disparity alarm
Alarm indicates the redundant discharge transmitters are not within the same pressure parameters.

2010-07-26 04:12:15. OPR S6 L6 M.P. 576.93 Sectionalizing Valve 576.93-6-V is now OPEN
Alarm indicates the Sectionalizing valve is open.

2010-07-26 04:12:31.   console5: line 6 La Porte: drive suction setpoint to 75
Setpoint command to pressure control valve.

2010-07-26 04:12:36.   console5: line 6 Mendon: drive suction setpoint to 75
Setpoint command to pressure control valve.

2010-07-26 04:12:37. 0..MBS S6 Line 6 Alarms 2 Hour ALARM in section GT->MR CLEARED
This alarm indicates that the 2 hour MBS imbalance is no longer below the threshold.

2010-07-26 04:12:48.   console5: line 6 Griffith: drive discharge setpoint to 341
Setpoint command to pressure control valve.

2010-07-26 04:13:08.   console5: line 6 La Porte: drive discharge setpoint to 398
Setpoint command to pressure control valve.

2010-07-26 04:20:21. OPR S4 L6 Griffith   Low Suction Pressure alarm CLEARED
Alarm cleared after suction pressure went above 25 psi.

2010-07-26 04:20:28.   console5: line 6 Griffith: start unit U-2
Initiating the line 6B startup where the first of 2 pumping units at the lead station are started.

2010-07-26 04:20:33. OPR S4 L6 Griffith   Unit U-2 is in sequence ON
Indicates the unit valves are sequencing after the start command is sent.

2010-07-26 04:21:45.   console5: line 6 Griffith: drive discharge setpoint to 391
Setpoint command to pressure control valve.

2010-07-26 04:22:02.   console5: line 6 Griffith: drive discharge setpoint to 441
Setpoint command to pressure control valve.

2010-07-26 04:22:38.   console5: line 6 La Porte: start unit U-1
Operator sent command to start the pump unit.

2010-07-26 04:22:51.   console5: line 6 La Porte: drive discharge setpoint to 498
Setpoint command to pressure control valve.

2010-07-26 04:23:26. OPR S2 L6 Griffith   Unit U-2 is ON
This alarm indicates that the unit valves have completed sequencing after the start command was sent.

2010-07-26 04:23:42.   console5: line 6 Griffith: start unit U-3
Operator sent command to start the pump unit.

2010-07-26 04:24:25.   console5: line 6 Griffith: drive discharge setpoint to 481
Setpoint command to pressure control valve.

2010-07-26 04:28:53.   console5: line 6 Griffith: drive discharge setpoint to 501
Setpoint command to pressure control valve.

2010-07-26 04:32:30.   console5: line 6 Mendon: start unit U-4
Operator sent command to start a unit.

2010-07-26 04:32:38.   console5: line 6 Mendon: drive suction setpoint to 90
Setpoint command to pressure control valve.

2010-07-26 04:32:57.   console5: line 6 La Porte: drive discharge setpoint to 548
Setpoint command to pressure control valve.

2010-07-26 04:33:58.   console5: line 6 Mendon: drive suction setpoint to 80
Setpoint command to pressure control valve.

2010-07-26 04:34:02.   console5: line 6 Griffith: drive discharge setpoint to 521
Setpoint command to pressure control valve.

2010-07-26 04:34:08.   console5: line 6 La Porte: drive discharge setpoint to 568
Setpoint command to pressure control valve.

2010-07-26 04:35:09. OPR S7 L6 M.P. 735.58 Section Valve 735.58-6-V Communications Failed
Alarm indicates the communication to the valve has failed.

2010-07-26 04:35:12. DRV S2 L6 Marshall   LPM: Resumed normal operating condition
Alarm occurred because the pressures increased above 0.

2010-07-26 04:35:53. 8..MBS S6 Line 6 Alarms 5 Minute ALARM in section MR->RW OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 5 minute imbalance indicating the imbalance has gone below the threshold over a 5 minute period.

2010-07-26 04:36:53. 8..MBS S6 Line 6 Alarms 20 Minute ALARM in section MR->RW OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 20 minute imbalance indicating the imbalance has gone below the threshold over a 20 minute period.

2010-07-26 04:37:22. OPR S2 L6 Stockbridge Man On Site

Alarm indicates field staff are on site.

2010-07-26 04:37:53.0..MBS S6 Line 6 Alarms 5 Minute ALARM in section GT->MR OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 5 minute imbalance indicating the imbalance has gone below the threshold over a 5 minute period.

2010-07-26 04:37:53.0..MBS S6 Line 6 Alarms 5 Minute ALARM in section GT->MR OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 5 minute imbalance indicating the imbalance has gone below the threshold over a 5 minute period.

2010-07-26 04:42:04.9..MBS S6 Line 6 Alarms 20 Minute ALARM in section GT->MR OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 20 minute imbalance indicating the imbalance has gone below the threshold over a 20 minute period. Alarm indicates the communication to the valve has been restored and the true status can now be read.

2010-07-26 04:43:40.12 OPR S4 L6 Mendon Unit U-4 is in sequence OFF
This alarm indicates that the unit valves are sequencing after the stop command is sent. This is typical after all unit stop commands. Therefore, the "sequence off" alarm has been omitted from the remainder of the document.

This is an alarm generated from the material balance system (leak detection). This is a 5 minute imbalance indicating the imbalance has gone below the threshold over a 5 minute period and has been in this state for more than 10 minutes.

2010-07-26 04:46:41.56 OPR S2 L6 Mendon Unit U-4 is now OFF (Hot Unit)
This alarm indicates that the unit valves have completed sequencing after the stop command is sent.

2010-07-26 04:49:15.81 OPR S2 L6 Marshall Man On Site
Indicates field staff are on site.

This is an alarm generated from the material balance system (leak detection). This is a 20 minute imbalance indicating the imbalance has gone below the threshold over a 20 minute period and has been in this state for more than 10 minutes.

2010-07-26 04:53:06.06 OPR S4 L6 Stockbridge Block Valve 650.64-6-V is in Travel CLOSED
Indicates block valve has started to close.

2010-07-26 04:53:07.92 OPR S4 L6 Stockbridge Block Valve 650.64-6-V is in Travel CLOSED
Indicates block valve has started to close.

Alarm occurred as a response to the valve at milepost 576.93 still being in travel closed. However, all units upstream of the valve are already off line.

2010-07-26 04:55:10.24 OPR S4 L6 Mendon Discharge pressure transmitter disparity alarm
Alarm indicates the redundant discharge transmitters are not within the same predetermined pressure parameters.

2010-07-26 04:55:15.08 OPR S4 L6 Mendon Discharge pressure transmitter disparity alarm
Alarm indicates the redundant discharge transmitters are not within the same predetermined pressure parameters.

2010-07-26 04:55:27.55 OPR S4 L6 Stockbridge Block Valve 650.64-6-V is CLOSED
Indicates the block valve is now closed.

2010-07-26 04:55:37.04 OPR S4 L6 Marysville Delivery Valve 152-DELV-1 is in Travel CLOSED
Alarm indicating that the valve is in travel going closed.

2010-07-26 04:55:38.59 OPR S4 L6 Marysville Delivery Valve 152-DELV-1 is in Travel CLOSED
Indicating the valve is in travel going closed.

2010-07-26 04:57:27.76 OPR S4 L6 Stockbridge Suction pressure transmitter disparity alarm
Alarm indicates the redundant suction transmitters are not within the same predetermined pressure parameters.

2010-07-26 04:57:39.46 OPR S4 L6 Stockbridge Suction pressure transmitter disparity alarm
Alarm indicates the redundant suction transmitters are not within the same predetermined pressure parameters.

2010-07-26 04:57:57.05 OPR S4 L6 Marysville Delivery Valve 152-DELV-1 is CLOSED
Alarm confirming the delivery valve is closed.

2010-07-26 04:58:50.5..MBS S6 Line 6 Alarms 5 Minute ALARM in section MR->RW CLEARED
This alarm indicates that the 5 minute MBS imbalance is no longer below the threshold.

2010-07-26 04:58:53.1..MBS S6 Line 6 Alarms 5 Minute ALARM in section MR->RW CLEARED
This alarm indicates that the 5 minute MBS imbalance is no longer below the threshold.

2010-07-26 04:59:50.72 OPR S4 L6 Stockbridge Low Suction Pressure
Indicates suction pressure is below 25 psi

2010-07-26 05:00:50.0..MBS S6 Line 6 Alarms 5 Minute ALARM in section GT->MR CLEARED
This alarm indicates that the 5 minute MBS imbalance is no longer below the threshold.

2010-07-26 05:01:52.3..MBS S6 Line 6 Alarms 2 Hour ALARM in section GT->MR OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 2 hour imbalance indicating the imbalance has gone below the threshold over a 2 hour period.

2010-07-26 05:01:52.3..MBS S6 Line 6 Alarms 2 Hour ALARM in section MR->RW OCCURRED
This is an alarm generated from the material balance system (leak detection). This is a 2 hour imbalance indicating the imbalance has gone below the threshold over a 2 hour period.

2010-07-26 05:11:52.3..MBS S6 Line 6 Alarms 2 Hour ALARM in section GT->MR Exceeded 10 minute limit
This is an alarm generated from the material balance system (leak detection). This is a 2 hour imbalance indicating the imbalance has gone below the threshold over a 2 hour period and has been in this state for more than 10 minutes.

2010-07-26 05:11:52.3..MBS S6 Line 6 Alarms 2 Hour ALARM in section MR->RW Exceeded 10 minute limit
This is an alarm generated from the material balance system (leak detection). This is a 2 hour imbalance indicating the imbalance has gone below the threshold over a 2 hour period and has been in this state for more than 10 minutes.

2010-07-26 05:11:53.2..MBS S6 Line 6 Alarms 20 Minute ALARM in section MR->RW CLEARED
This alarm indicates that the 20 minute MBS imbalance is no longer below the threshold.

2010-07-26 05:14:16.62 OPR S7 L6 M.P. 735.58 Section Valve 735.58-6-V Communications Failed
Indicates communication to the valve has failed.

2010-07-26 05:16:53.6..MBS S6 Line 6 Alarms 20 Minute ALARM in section GT->MR CLEARED
This alarm indicates that the 20 minute MBS imbalance is no longer below the threshold.

2010-07-26 05:21:59.56 OPR S7 L6 M.P. 533.21 Section Valve 533.21-6-V Communications Failed
Indicates communication to the valve has failed.
2010-07-26 05:26:06.61 OPR S6 L6 M.P. 438.39 Sectionalizing Valve 438.39-6-V status is UNKNOWN
Indicates the sectionalizing valve status is unknown.

2010-07-26 05:26:06.61 OPR S7 L6 M.P. 438.39 Sectionalizing Valve 438.39-6-V Failed
Indicates the sectionalizing valve has failed. Command was not received.

2010-07-26 05:27:00.72 OPR S6 L6 M.P. 438.39 Sectionalizing Valve 438.39-6-V is now OPEN
Indicates sectionalizing valve is now open.

2010-07-26 05:27:10.18 OPR S7 L6 M.P. 735.58 Section Valve 735.58-6-V Communications Failed
Indicates communication to the valve has failed.

2010-07-26 05:29:59.72 OPR S7 L6 M.P. 533.21 Section Valve 533.21-6-V Communications Failed
Indicates communication to the valve has failed

2010-07-26 05:34:44.71 OPR S7 L6 M.P. 532.74 Section Valve 532.74-6-V Communications Failed
Indicates communication to the valve has failed

2010-07-26 05:55:33.48 OPR S7 L6 M.P. 533.21 Section Valve 533.21-6-V Communications Failed
Indicates communication to the valve has failed