

HALLIBURTON

Data QA/QC

Software User Manual

Version 1.3.2.0

- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF

halsupport24@Shellsquare.com
+1 888 532 7444



• **What's New!**

• Introduction

• Access and Credentials

• User permissions

• Application Overview

• Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

• Application Modules

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

• Downloads

- Brochure
- User's Manual PDF

What's New



New Features

Multi-tenant support	Platform Availability	PDT Versioning	Enhanced Alarm Viewer	
<ul style="list-style-type: none"> Connects to multiple data sources simultaneously, enabling monitoring of UKS and USC wells simultaneously User-friendly switch between UKS and USC using a checkbox on the main dashboard screen 	<ul style="list-style-type: none"> Displays default last 24 hours uptime of WITSML SOAP and ETP platforms Offers filter options for last 7 days, 30 days, 3/6/12 months for relevant uptime details Presents total operational time as a percentage 	<ul style="list-style-type: none"> From the UI navigate and selects/exports different PDT files available from InsiteAgent Manages up to 10 versions with a naming convention PDT+ timestamp Automatically handles PDT file storage, deleting oldest files when exceeding 10 Imports only the newest PDT file from InsiteAgent 	<ul style="list-style-type: none"> Utilizes advanced filtering options (Severity Type Actions) for detailed well/wellbore insights Exports detailed Well Alarm information in CSV format Allows adding comments for selected well/wellbore Displays detailed alarm history in the Activity Log section 	
Allow concurrent monitoring of diverse well types	Provides immediate visibility into platform uptime	Enables efficient analysis and comparison of PDT files	Enhances alarm management with comprehensive filtering capabilities	
Navigational Tooltip	New PDT Import Notification	Reports	Reports	Reports
<ul style="list-style-type: none"> Provides tooltips throughout the app for intuitive navigation 	<ul style="list-style-type: none"> Notifies user of new PDT availability from InsiteAgent Highlights new PDT availability with a yellow icon next to each well/wellbore details on the monitoring dashboard 	<ul style="list-style-type: none"> Generates Well metadata report as PDF 	<ul style="list-style-type: none"> Downloads Detailed Report as a PDF for the selected well 	<ul style="list-style-type: none"> Downloads Summary Reports as a PDF for the selected well Displays Platform availability table (SOAP and ETP) Presents Issues Classified by Detection Type in charts Shows Detection type vs Severity in a donut chart
Enhances user experience with seamless access to information	Promotes awareness and prompt action on new PDT imports	Provides comprehensive details of active wells in the monitoring screen	Offers indepth insights into selected well's details	Provides summarized information about selected well



Enhancements on features

- Performance optimized (Handled the no match found on the right side alarm panel when well is selected)
- Data gap icon -Green to grey colour change
- Import history to audit trail label change
- User manual integration

- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF

- Limit alarms on the right side panel to last 2 hours
- Reduce the platform uptime check interval to 1 minute and show red indication only for server unavailable case.
- Alarm counter reset every 24 hours from service start time.
- Disabled import workorder option.

Bugs

- Gap Monitor page no data available fix.
- Adding Comments in alarm error fix

Known Issues

- Downloading reports having huge amount of alarms may return error . Verified upto 17k alarms

Application Versions

Current Version:	1.3.2.1
Previous Version:	1.3.2.0

Introduction

The Data QA/QC application enables support personnel to detect data issues in RTS in real time. Remedial action can be made to rectify the data so that downstream applications can benefit from high-quality data.

This manual will walk you through the features and functionality of the DATA QA/QC application.

Access and Credentials

Users can access the application through web browser over the Internet.

Log in with your Halliburton credentials on the authentication page.

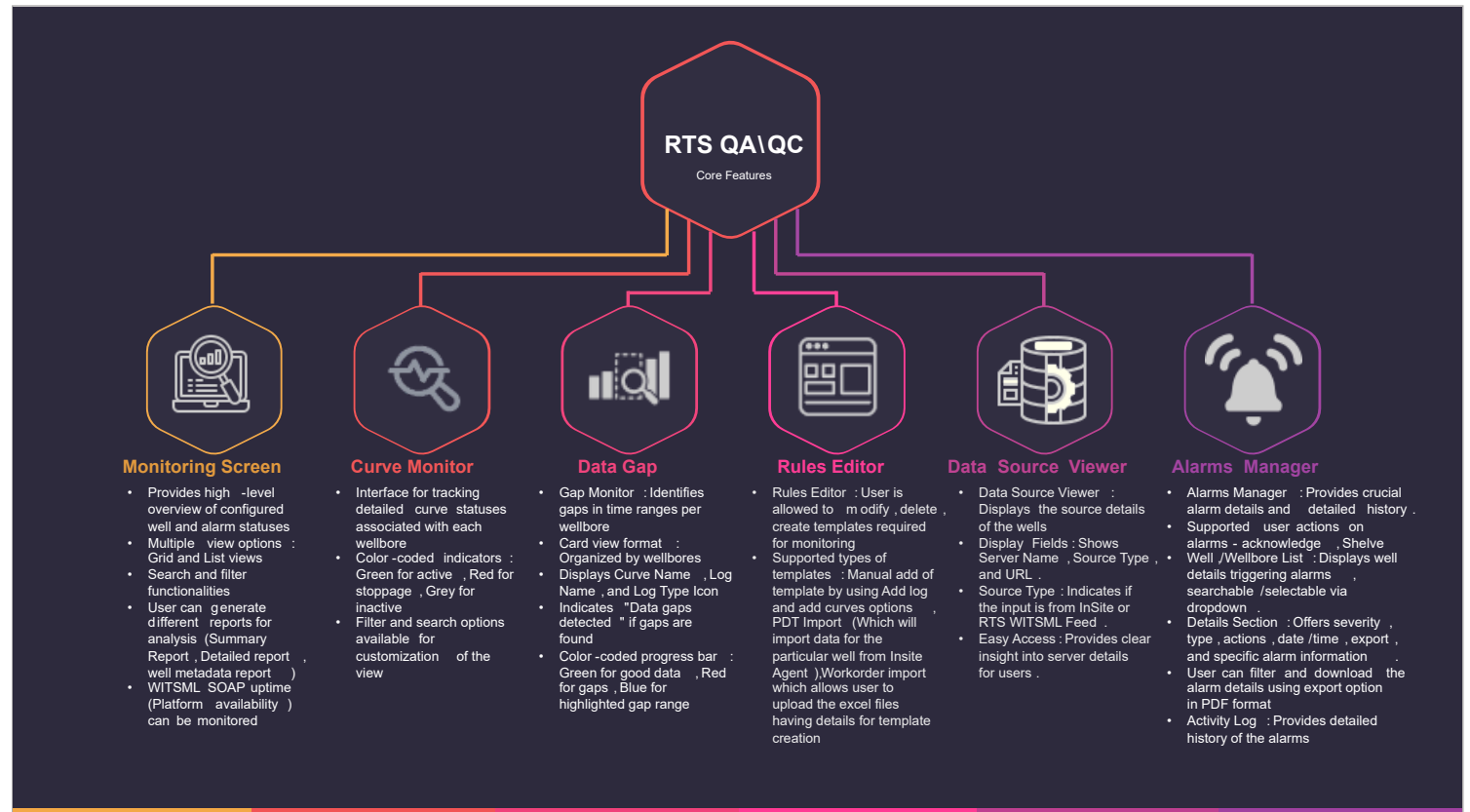
- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF

User Permissions

The user must be registered with OKTA and should have the authorization to access the application via OWAI.

Users will have access to the wells\wellbores which they are entitled to.

Application overview



• What's New!**• Introduction****• Access and Credentials****• User permissions****• Application Overview****• Navigating The Application**

- Login Page
- Menu
- Application Topbar
- Theme

• Application Modules

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

• Downloads

- Brochure
- User's Manual PDF

Login Page

Users can enter their credentials to access the application.

Users can access the system using Halliburton id, however the data is displayed based on the logged in user's access to the wells/wellbore.

Please follow the below steps to login to the application.

- Login to the application using HAL ID
 - You will be directed to the landing page once you have successfully logged into the system.
 - You will be prompted with error messages when:
 - Username is blank
 - Password is blank
 - Incorrect HAL ID or password



HALLIBURTON

RTS App Store

Email

This field cannot be left blank

Remember me

Next

Need help signing in?

Don't have an account? [Sign up](#)

By clicking Next, I acknowledge and accept the [Terms and Conditions](#).

Halliburton
RTS App Store
Build Version: 2.3.8.0.dev

USA: +1 877 263 6071
Intl: +1 713 839 4315
Realtimeoperations@halliburton.com

Copyright © 2021 Halliburton. All rights reserved.

- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF

Menu

This application has 6 menu items. Menu bar can be expanded/collapsed based on the user preference by clicking on the arrow button at the bottom.

- Monitor Dashboard
- Curve Monitor
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

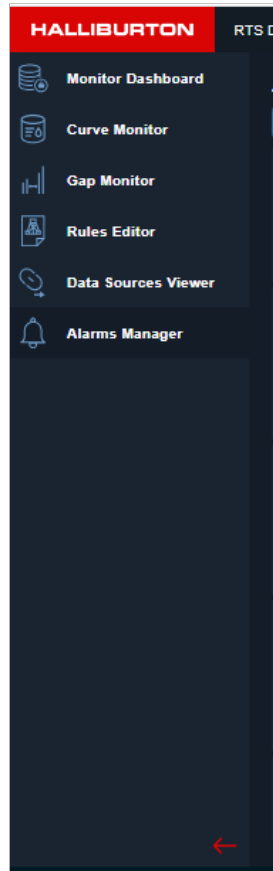
Menu bar can be expanded/collapsed based on the user preference by clicking on the arrow button at the bottom.

HALLIBURTON

Data QA/QC

Software User Manual
Version 1.3.2.0

- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF



Application Topbar

Top bar buttons

- Appstore button
- Theme Button
- User Name and Logout button

HALLIBURTON

Data QA/QC

Software User Manual
Version 1.3.2.0

- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF

halsupport24@Shellsquare.com
+1 888 532 7444

The screenshot displays the 'MONITORING SCREEN' for 'RTS Data Quality'. The interface is in dark mode. At the top right, the user 'Sukanniya Sivankutty' is logged in. The table below lists various wells and their associated data logs. Each row represents a well, with columns for Operator, Issues, Well/Wellbore, Time Log, Depth Log, Mud Log, Trajectory, Data Gap, Service Type, and Data Source. The 'Data Gap' column uses colored circles to indicate the status of the data gap.

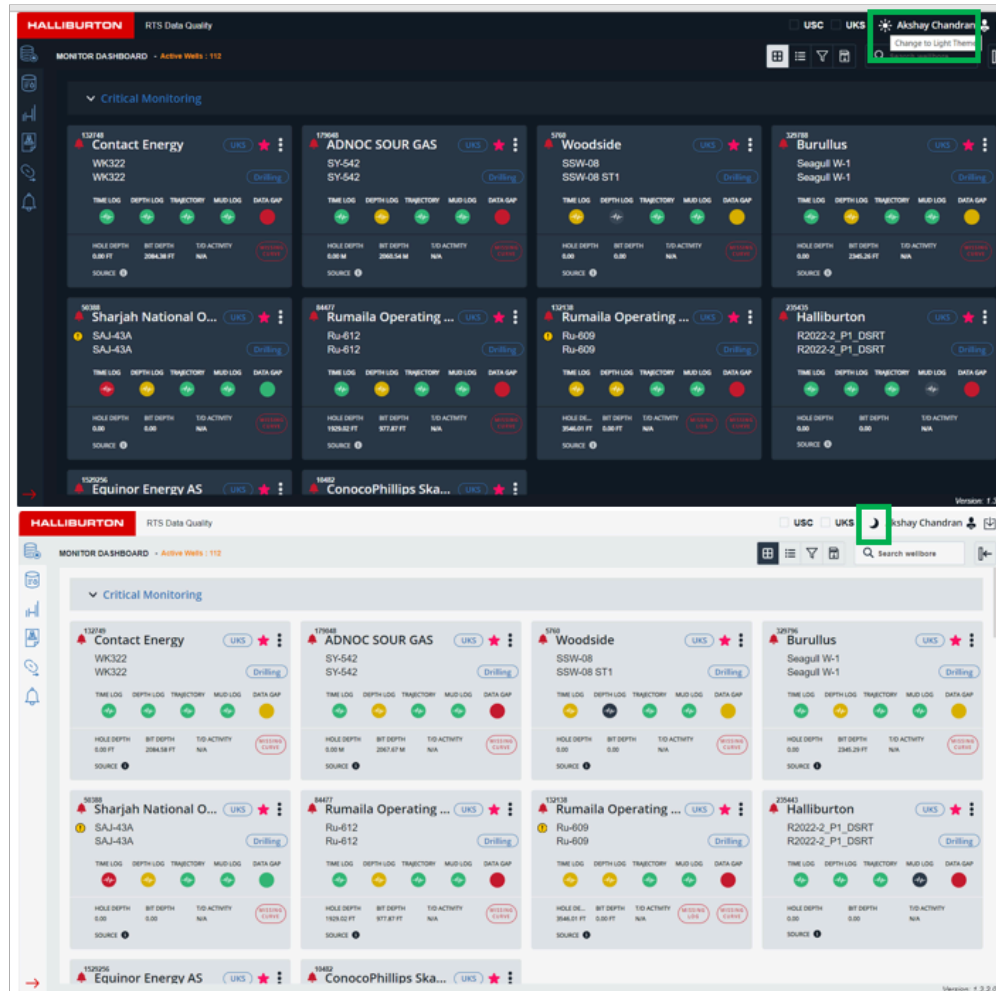
Operator ↓	Issues ↓	Well/Wellbore ↓	Time Log ↓	Depth Log ↓	Mud Log ↑	Trajectory ↓	Data Gap	Service Type ↓	Data Source ↓	Columns
SS Test		★ AGU_1 AGU_1	🔴	🔴	🔴	🔴	🔴	-	AZUSCRTO2I702v....	⋮
Halliburton		★ 020 SACHA-541 (SCHA... SACHA-541 (SCHAM-...	🟢	🟢	🔴	🔴	🔴	-	-	⋮
Halliburton		★ 005 MJ-156 MJ-156	🔴	🔴	🔴	🔴	🟢	Drilling	-	⋮
Halliburton		★ ABH-60-03-201 Test ABH-60-03-201 Test	🔴	🟢	🔴	🔴	🟡	-	-	⋮
Halliburton	5	★ 012 25/10-C-1 25/10-C-1 H	🟢	🔴	🔴	🔴	🟡	Drilling	-	⋮
Halliburton		★ WRTGen Well WRTGen Well	🟢	🟢	🔴	🟢	🟡	Drilling	AZUSCRTO2IA802....	⋮
Halliburton		★ WMG-B10(BR) app1st WMG-B10(BR)	🔴	🟢	🔴	🔴	🟡	Drilling	-	⋮
Halliburton		★ Well_Test_03 Well_Test003	🔴	🟢	🔴	🔴	🟢	Drilling	azwvdliddc1-7.cor...	⋮
Halliburton		★ 015 BDL-A3 BDL-A3	🟢	🟢	🔴	🔴	🟡	-	-	⋮
Halliburton		★ 004 30_13e-TB 30_13e-TB	🟢	🟢	🔴	🔴	🟡	-	-	⋮
Halliburton		★ 003 27-NR-1	🔴	🟢	🔴	🔴	🟢	-	-	⋮

Version: 1.3.1.31

Theme

The application theme can be toggled between dark and light theme based on the user's preference by clicking on the theme button on the top-right of the title bar.

- What's New!
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF



Monitor Dashboard

This screen serves as a crucial tool for QA/QC monitoring, allowing users to track the status of growing objects configured within the system.

HALLIBURTON
Data QA/QC
 Software User Manual
Version 1.3.2.0

• **What's New!**

- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

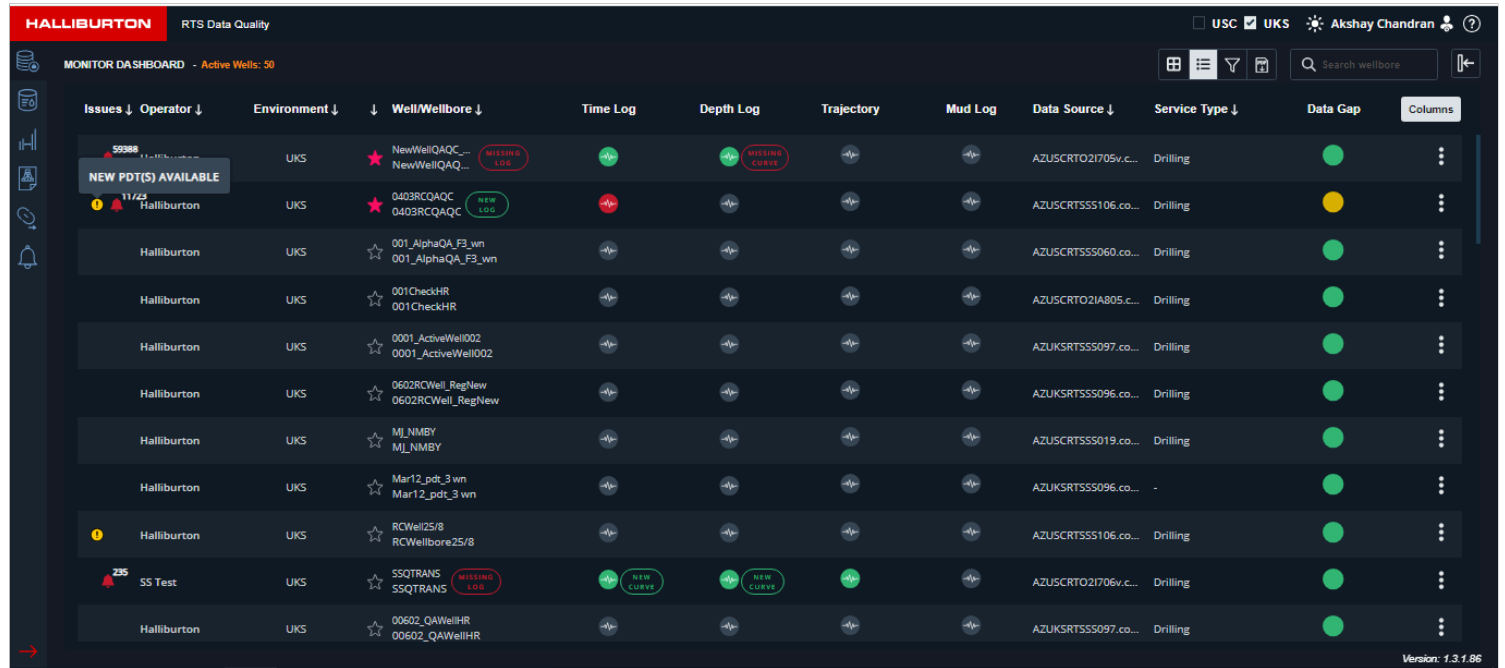
• **Application Modules**

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

• **Downloads**

- Brochure
- User's Manual PDF

halsupport24@Shellsquare.com
 +1 888 532 7444



Tool Bar Options

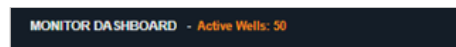
Upon accessing the Monitoring Screen, users will encounter the following tool bar options:

Title Bar options:

- UKS / USC Environment Checkbox: USC UKS Based on the selection wells will be displayed. If both environments are unchecked all wells will be displayed.



- Active Wells: Displays the count of active wells in the list.



- RTS Platform availability: This option will be displayed only when one of the environments is selected
 - Green: Indicates an active connection.
 - WITSML and ETP: Percentage of availability will be displayed.

• **What's New!**

- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

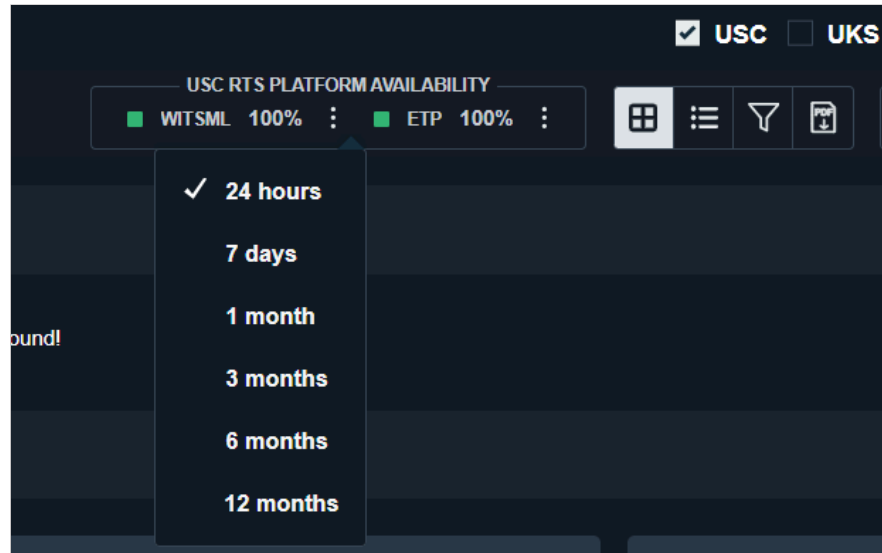
• **Application Modules**

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

• **Downloads**

- Brochure
- User's Manual PDF

- When clicked on 3 dots: Users can view the time frame /availability of WITSML and ETP server.



- **Display Controls:** Users can view the monitoring data in 2 ways

- List View (Default)

- In the List View, monitoring data is presented in a structured table format. In this view, users will see only the default columns.

Fields	Description
Default Columns are:	
Issues	<ul style="list-style-type: none"> ▪ Within this column, an alarm icon is featured in a distinct red color. This icon is accompanied by a numerical count of the associated issues. When users click on this icon corresponding to a specific well, it will expand the Alarm Panel on the right side of the screen. This expanded panel displays alarm details and related information.
Operator	<ul style="list-style-type: none"> ▪ Operator name will be displayed here
Well\Wellbore name	<ul style="list-style-type: none"> ▪ The name of Well and wellbores are displayed here. <ul style="list-style-type: none"> ▪ Well is displayed in small font

• **What's New!**

• Introduction

• Access and Credentials

• User permissions

• Application Overview

• Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

• Application Modules

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager


• Downloads

- Brochure
- User's Manual PDF

- Wellbore is displayed in big font
- Wellbores can be sorted by clicking on the arrow button next to the wellbore header
- When the connection to the source is lost, an alert sign will appear on the wellbore side, allowing the user to check the status of the wellbore.
- When a source connection is lost the respective wellbore status row will turn grey

Default Growing Objects available here are TimeLog and DepthLog

Time log

- This column helps user to monitor the time log data flow
- Below icon will be displayed for the user to monitor the data
-  - To show the status of object whether it is streaming in real time or not.

Color Legends

Color legends are followed to depict the status of data flow:

- Red: No logs streaming (Streaming Stopped)
- Green: All logs streaming (Streaming is active)
- Yellow: Some logs streaming, some stopped (Detected stoppage in streaming)
- Grey: Real-time streaming (Inactive)

Depth log

- This column helps the user to monitor the depth log data flow in.
- Icon is same as of Time log column.

Additional Columns are:

Trajectory

- This column helps the user to monitor the Trajectory data flow in.
- Icon is are same as of Time log column.

Mud Log

- This column helps the user to monitor the mud log data flow in.

• **What's New!**

• Introduction

• Access and Credentials

• User permissions

• Application Overview

• Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

• Application Modules

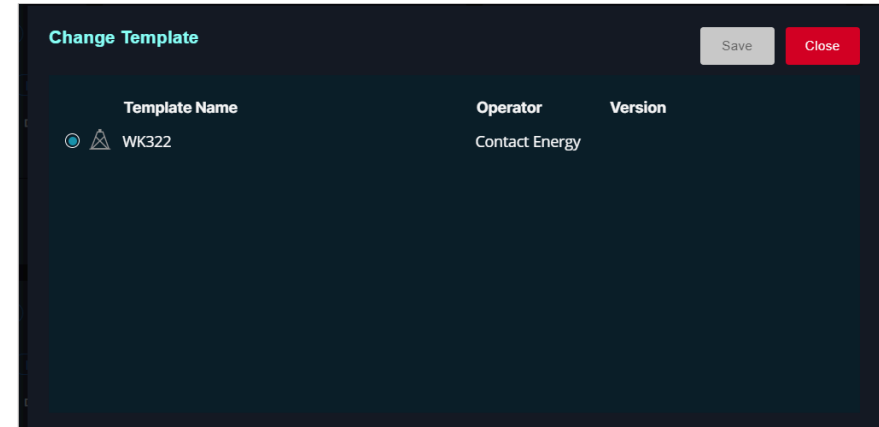
- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

• Downloads

- Brochure
- User's Manual PDF

	<ul style="list-style-type: none"> ▪ Icon is same as of Time log column.
Data Source	<ul style="list-style-type: none"> ▪ Source server name will be displayed here
Service Type	<ul style="list-style-type: none"> ▪ Service types will be displayed here <ul style="list-style-type: none"> ▪ Drilling ▪ Well Testing ▪ Cementing ▪ Coil Tubing ▪ Well Fracturing ▪ Wireline ▪ Wellbore Fluids
Data Gap Fill	<p>This column will display the data Gap fill status of each wellbore to be monitored based on the data streaming.</p> <p>Color legeneds followed here:</p> <ul style="list-style-type: none"> ▪ Green: Good Data (No gap identified) ▪ Yellow: Gap History (When the data gap is fixed ,the indicator will turn yellow) ▪ Red: If gap is identified
Configure Icon	<p>Each wellbore has a three-dot button next to it. When clicked a menu will be diplayed as shown in the Figure below with 4 options, Rules Editor ,Change Template , Detailed Template ,and Summary Report:</p> <ul style="list-style-type: none"> ▪ Rules Editor: which will direct the user to respective Template screen allowing the user to simply configure/edit the template for log, trajectory, Mudlog, and curves individually. ▪ Change Template: When clicked on this option a pop-up window will be displayed. Users can select their required template from the list and click save to change the template for the wellbore.

- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF



- **Detailed Report:** When you select this option, a PDF report for the related well will be downloaded. A complete detailed Well report contains the:
 - Well
 - Wellbore
 - Wellbore UID
 - Operator
 - Timezone
 - Data Source
 - Service
 - Source Type
 - Log
 - Log Type
 - Gap , Delay and Status details will be reportedSample Report (For reference purpose) : [Detailed Report](#)
- **Summary Report:** Users can download the PDF report of selected well.
Sample Report (For reference purpose) : [Summary Report](#)

- **Monitoring screen default grid headers are:**

- Issues
- Operator

- **What's New!**

- Introduction

- Access and Credentials

- User permissions

- Application Overview

- Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

- Application Modules

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

- Downloads

- Brochure
- User's Manual PDF

- Well/wellbore Name will be displayed

- Time Log

- **Adding Columns to the Grid:**

To enhance the grid view, you can easily add more columns using the Column Chooser feature. To access the Column Chooser, follow these steps:

- Click on the **"Columns"** button.

- Selected box contains default columns and additional columns for users to add. The Column Chooser is divided into two sections: "Available" and "Selected."

- Selected (Default) Columns

- In the **"Selected"** box, you will find the default columns, which are displayed in grey font.

- Users can modify the order of these columns by clicking the "Up" and "Down" arrows to rearrange them as needed.

- **Additional Columns**

- Additional columns, displayed in white font, can be found in the **"Available"** box.

- Users have the flexibility to add the required additional columns to the "Available" box. You can do this by selecting the desired column and clicking the appropriate button to move it to the "Available" box.

- Alternatively, you can choose to add all available columns to the "Available" box for a comprehensive view.

- Card View

- The Card View offers an alternative display option. Here, well data is divided into two sections: "Critical Monitoring" and "Active Wells."

- Users have the flexibility to personalize their experience by selecting their favourite wells or wellbores. This can be done by clicking on the star icon, which will turn red once added to the "Critical Wells" section.

- The Card View presents a comprehensive overview of monitoring data, making it easier for users to quickly identify and prioritize critical information.

HALLIBURTON
Data QA/QC
 Software User Manual
Version 1.3.2.0

• **What's New!**

- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application

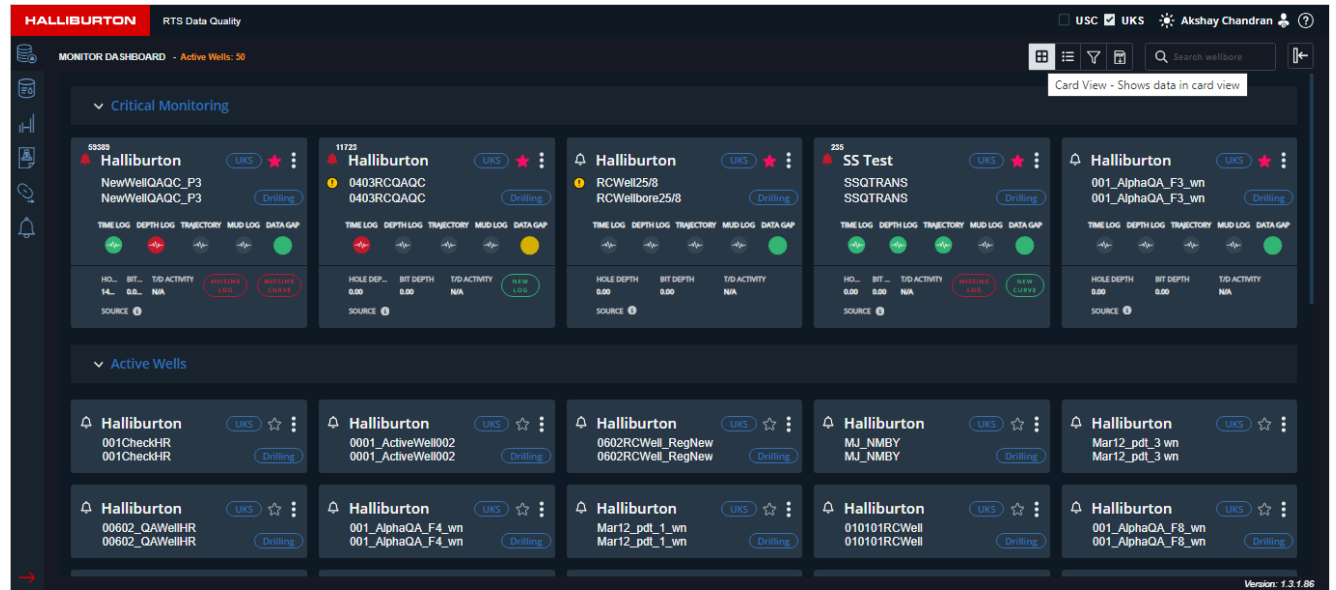
- Login Page
- Menu
- Application Topbar
- Theme

• **Application Modules**

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

• **Downloads**

- Brochure
- User's Manual PDF



■ Card Information explained:

- Yellow Indicator to notify users on New PDT availability

Filter Functionality

The combined filter functionality allows users to refine their search based on various criteria, including PSLs, Region, Customer, Wells/Wellbore. Follow these steps to utilize the filter:

1. Accessing Combined Filters:
 - Navigate to the filter options in the search interface and look for the "Filters icon".
2. Favourite Wellbores:
 - If this option is selected, the list will be narrowed down to only include favorite wellbores.
3. Choosing Filter Criteria:
 - Select criteria such as PSLs, Region, Customer, Wells/Wellbore.
4. Applying Filters:
 - Click the "Close" button to instantly update search results based on chosen criteria. Reset button is also available.
5. Saving Filter Selections:
 - Click on "Save Filter Selections" to store filter configurations for future use.

• What's New!

- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

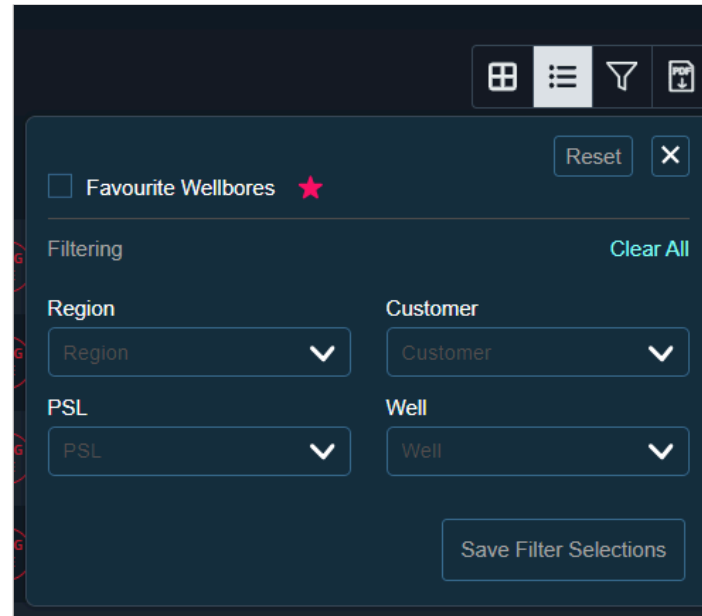
• Application Modules

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

• Downloads

- Brochure
- User's Manual PDF

- Provide a descriptive name for the filter selection and click "Submit".

**Metadata Report**

Users can download the details of Active wells in the monitoring by clicking on the PDF button which will download Metadata Well report PDF.

**Search Functionality**

Users can utilize the search functionality to look for specific well and wellbore names.

- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF

Alarm Panel

The Alarm Panel feature is available in the monitoring screen. Users can expand or collapse it using the designated icon.

- Viewing Alerts:
 - Click on the alarm icon under the header "Issues" in the grid to view alerts of individual wells.
- View Details:
 - This section displays alarm details, provides access to alarm history, and enables users to take actions within the Alarm screen.
- Filter Functionality in Alarm Panel:
 - Users can narrow down the list based on three options: Active, Acknowledged, and Shelved.

New Log/Curve Notification

Apart from the configured logs or curves in template if any new logs or curves are added in RTS the system will identify (every 12 hour system will check RTS for any new logs or curves) and shows notification for the user as pill icon in the dashboard screen.

INFO

Sorting Grid information is performed by clicking the arrow button adjacent to the grid headings.

- Operator,Well/Wellbore,Data Source,Service Type: Sortable in ascending/descending order
- Time Log,Depth Log,Trajectory and Mud Log:
 - Initially, problematic data will be displayed during sorting.
 - Following that, live data will be displayed.
 - Inactive data will be displayed later

By default, problematic data will appear first in the grid when the screen is refreshed.

Curve Monitoring

- **What's New!**

- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

- **Application Modules**

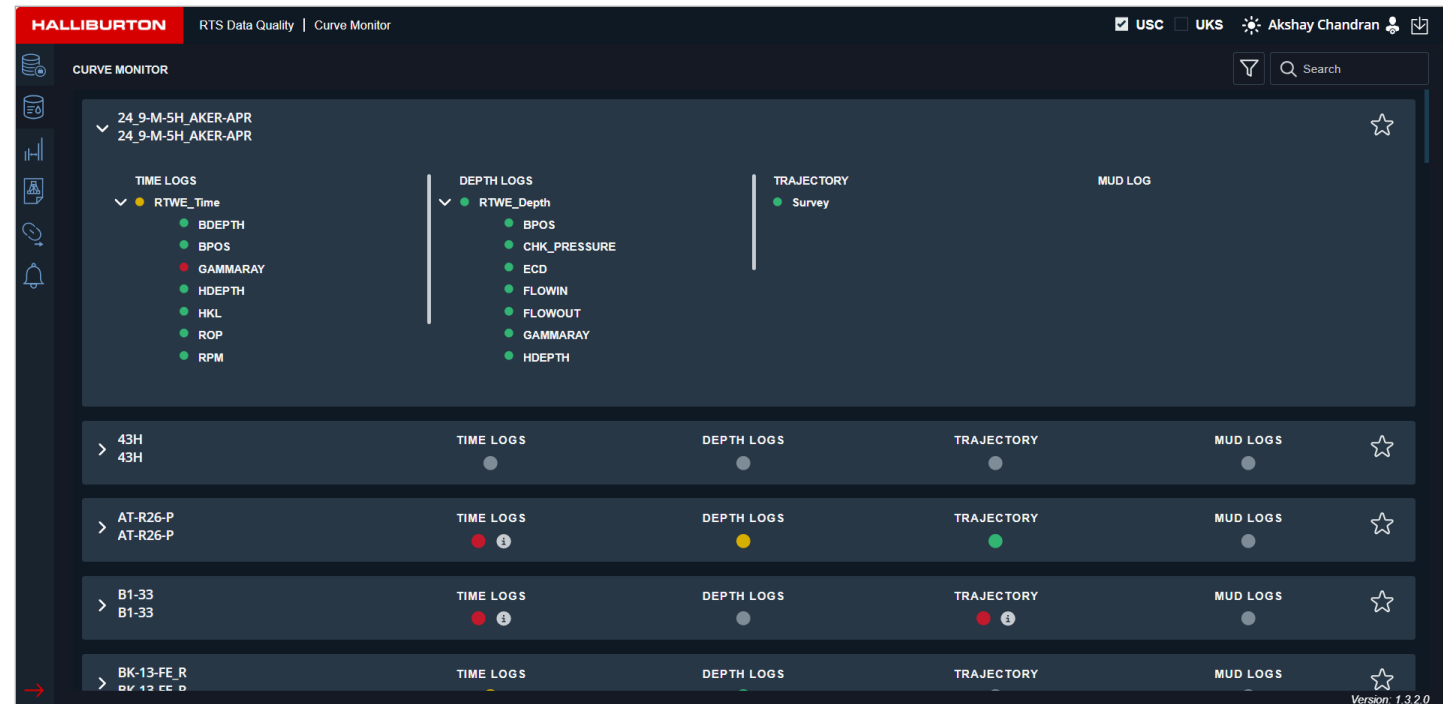
- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

- **Downloads**

- Brochure
- User's Manual PDF

Users may keep track of the curves for each wellbores here. The curves are categorized based on the log(Depth,Time,Trajectory,Mudlog)

1. The curves for the new wellbore will be auto populated in this screen dependent on the log.
 - If the curve is not streaming, the colour changes to red. When clicked on the red dot user will be navigated to the **Alarm** page ,where alert details will be displayed
 - once the real-time streaming is detected, the colour changes to green.
 - Color legends followed for curves :
 - Green : Active
 - Red : Stoppage
 - Grey : Inactive
2. Filter : Users can utilize the filter option to narrow down the list (Same filter functionality in Monitoring screen)
3. Search functionality: Search the list by wellbore names
4. Users have the flexibility to personalize their experience by selecting their favorite wells or wellbores. This can be done by clicking on the star icon, which will turn red.



- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF

Gap Monitor

The Gap Monitor page is designed to display gaps identified between a specified range of time for each wellbore. Each wellbore may have multiple curves, and the presence of gaps in these curves is indicated by the appearance of the text "Data gaps detected" for the entire wellbore section.

- Details are displayed in a card view format based on wellbores
 - Under each Wellbore, Curve Name ,Log name and Log type icon will be displayed for the streaming data
 - Each curves can have a dropdown option based on the data streaming, it will display the gap range occurred. When the Gap range from and To is selected the progress bar will highlight the gap portion in blue color
 - Color indication on bar :
 - Green: Good Data (No gap identified)
 - Red: If gap is identified (Critical Curve BDP)
 - Blue: Gap range will be highlighted

The screenshot shows the 'GAP MONITOR' interface with the following data:

WELLBORE	CURVE NAME	LOG NAME	LOG TYPE
OCS-G 36263 002 ST...	On Bottom Status	Surface_Main_Time	🕒
	In Slips Status	Surface_Main_Time	🕒
	SPP Avg	Surface_Main_Time	🕒
	MUDWEIGHT	RTWE_Time	🕒
	Dens Mud Out Av	Surface_Main_Time	🕒
	Bit to surface time	Surface_Main_Time	🕒
	Surface to surface volume	Surface_Main_Time	🕒
	MUDWEIGHT	RTWE_Depth	🕒
ERWW-03 ERWW-03	TNPL-T	DSI-MWD Wits_Time	🕒
	15IA	DSI-Mudlog Wits_Time	🕒
OCS-G 36780 ST00B...	Stands Tripped	SSC Surface_Time	🕒
	Remarks Data	SSC Surface_Time	🕒
	FG Cum Calc	SSC Surface_Time	🕒
	Remarks Data	SSC Surface_Time	🕒
OCS-G 18194 010 ST...	Remarks Data	SSC Surface_Time	🕒

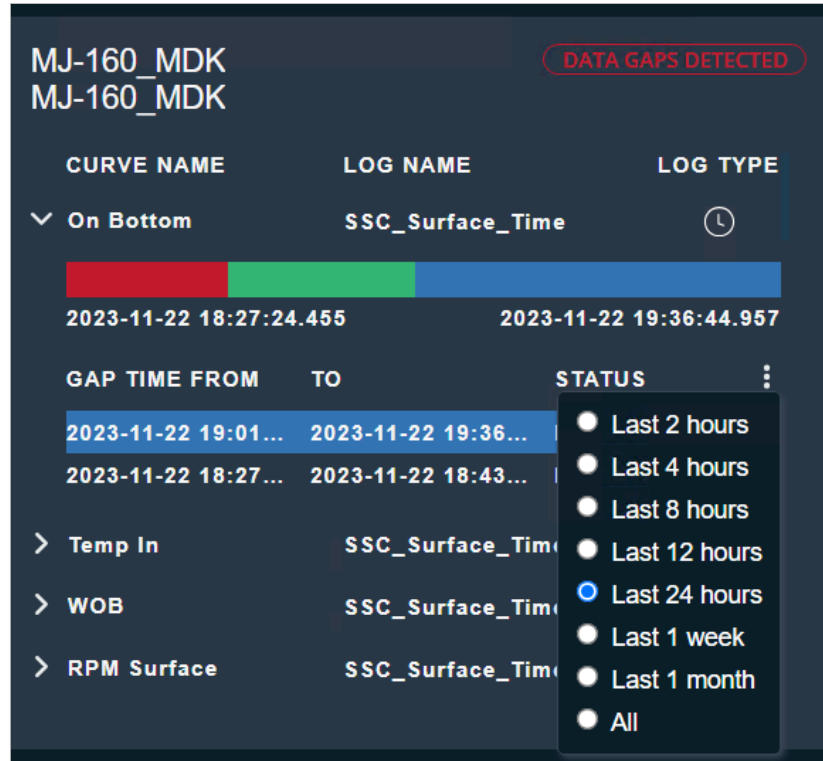
Gap Detection Progress Bar:

GAP TIME FROM	TO	STATUS
2024-04-23 21:05:00.960	2024-04-23 21:07:30.957	In Progress
2024-04-23 20:57:47.985	2024-04-23 21:01:16.983	In Progress
2024-04-23 20:33:56.091	2024-04-23 20:37:01.063	In Progress
2024-04-23 20:29:40.078	2024-04-23 20:32:33.082	In Progress

• **What's New!**

- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF

- Filter functionality is available in all details sections. Click on the 3 dots to open the filter range window (Please refer to the Figures below)
 - Default data loaded for time log: **last 24 hours**



- Default data loaded for Depth log,Trajectory and Mud Log: **last 100ft**

• What's New!

- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application

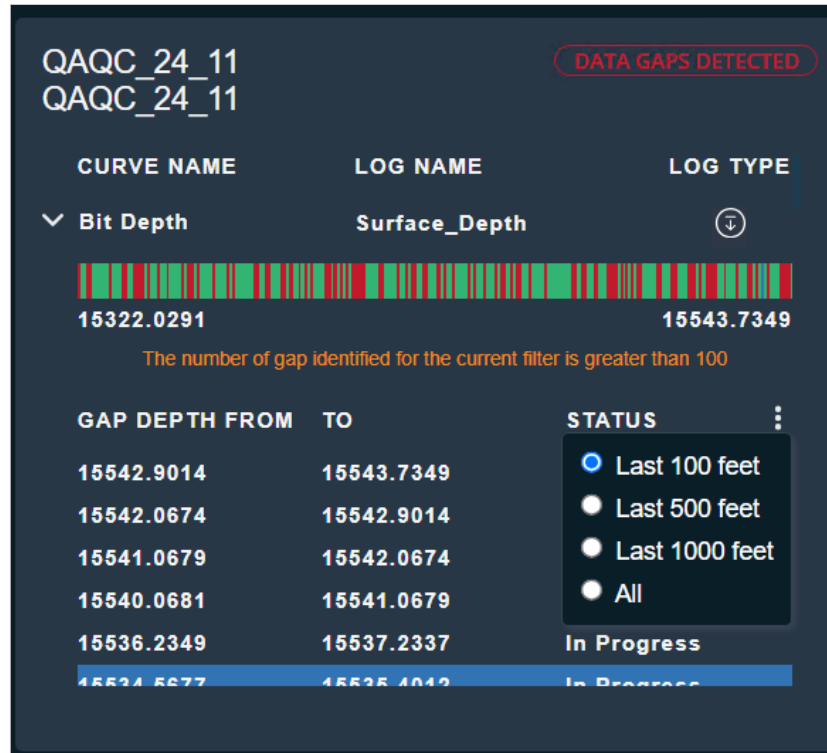
- Login Page
- Menu
- Application Topbar
- Theme

• Application Modules

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

• Downloads

- Brochure
- User's Manual PDF



Rules Editor

This screen aids users to change the configuration of wellbore specific templates. Here, users have the flexibility to input data for various objects manually or import data.

Configuration for Logs, Trajectory, Mud log, and curves will be included in the template.

1. All templates with operator names are displayed on the left side of the screen.
2. A search functionality is available in the template list for searching the template name and operator.
3. A collapse/expand button will appear on the right side of the pane to reveal the selected template information, which includes Monitor Time, Depth Log, Monitor curves, Monitor Trajectory, and Monitor Mud Log.
4. Once the template is modified click **Save** button to save the template configuration
5. Import Button: Users can import the data in 2 ways

• **What's New!**

- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

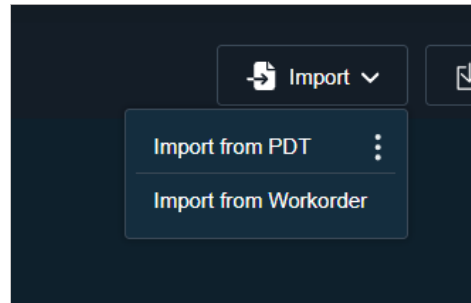
• **Application Modules**

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

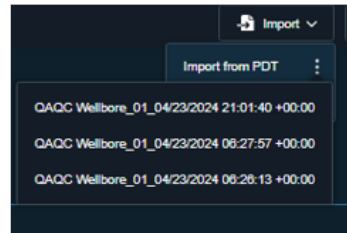
• **Downloads**

- Brochure
- User's Manual PDF

- Import From PDT
- Import from Workorder



- To view the PDT versions click on the 3 dots next to Import from PDT



Adding growing object details inside a template

Fields	Description
Monitor Time Log	<p>This section contains the following fields that allow the user to configure the Time log.</p> <ul style="list-style-type: none">• Add log: User can add 5 new logs to the section.• Monitor Time Log Grid<ul style="list-style-type: none">◦ Log name: It describes the name of the log.◦ Critical curve: Selected critical curve will be displayed here. View and edit the critical curve by clicking the edit icon, which opens a pop-up window displaying available curves for selection.

- **What's New!**

- Introduction

- Access and Credentials

- User permissions

- Application Overview

- Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

- Application Modules

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

- Downloads

- Brochure
- User's Manual PDF

- **UOM:** User can enter the unit info here
- **Frequency(sec):** User can enter the frequency value in seconds (Field is free to edit)
- **Gap Allowed(min):** The monitoring time gap limit can be entered here in minutes.(Field is free to edit)
- **Double Data Point (sec):** Enter the value
- **Delete button:** User can delete the log.

<input checked="" type="checkbox"/>	Log Name	Critical Curve	UOM	Frequency (sec)	Gap Allowed (min)	Delete <input type="checkbox"/>
<input checked="" type="checkbox"/>	SSC_Surface_Time	Hole Depth <input type="checkbox"/>	m	30	2	<input type="checkbox"/>
<input checked="" type="checkbox"/>	SSC_Downhole_Time	WOB RT <input type="checkbox"/>	kdaN	30	2	<input type="checkbox"/>

Monitor Depth log

- **Add log:** User can add 5 new logs to the section.
- Monitor Depth log Grid
 - **Log name:** It describes the name of the log.
 - **Critical curve:** Selected critical curve will be displayed here.View and edit the critical curve by clicking the edit icon, which opens a pop-up window displaying available curves for selection.
 - **UOM:** User can enter the unit info here
 - **Time Log | Depth Curve** Time log and Depth curve list will be displayed in the dropdown.User can select the required log and curve from the list
 - Time Log : Time logs will be displayed from the wellbore based on the selected critical curve
 - Depth Curve: Depth curve list is displayed based on the time log list
 - **Frequency(ft):** User can enter the value in feet based on the index type.
 - **Gap Allowed(ft):** The monitoring depth limit in feet can be entered here.
 - **Double Data Point (ft):** Enter the value
 - **Delete button:** User can be able to delete the log.
 - Fields are free to edit

- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF

<input checked="" type="checkbox"/>	Log Name	Critical Curve	UOM	Time Log	Depth Curve	Frequency (ft)	Gap Allowed (ft)	Delete
<input checked="" type="checkbox"/>	SSC_Surface_Depth	Hole Depth	m	SSC_Surfac	Hole Depth	1	2	
<input checked="" type="checkbox"/>	SSC_Downhole_D...	WOB RT	kdaN	SSC_Downl	WOB RT	1	2	

Monitor Curves

This section displays the following columns.

- **Count:** Display the count of curves selected
- **Filter:** Filter the list based on time and depth
- **Add Curves:** On clicking Add curves user can add new curves to the list.
- **Log Type:** This displays the type of the log in icons. A check box is available next to the log type, where users can add required curves to the template. Users can select all the curves at once or they can select the specific curves
- **Log name:** This describes the corresponding log name for each curve selected.
- **Curve Name:** This displays the selected curve.
- **UOM:** User can enter the unit info here
- **Min and Max:** This field allows users to input both the minimum and maximum values. Alerts will then be shown based on these threshold values.
- **Max Delay (Sec/ft):** This allows the user to set the delay value in seconds/feet and system will check if the data is coming within this tolerance level for the curve/log, if not it should identify it as gap.
- **Delete button:** User can be able to delete the curve

• **What's New!**

- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

• **Application Modules**

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

• **Downloads**

- Brochure
- User's Manual PDF

<input checked="" type="checkbox"/>	Log Type ↓	Log Name ↓	Curve Name ↓	UOM	Min	Max	Max Delay(sec...)	Delete
<input checked="" type="checkbox"/>	⌚	RTWE_Time	BDEPTH	ft			30	
<input checked="" type="checkbox"/>	⌚	RTWE_Time	BPOS	ft			30	
<input checked="" type="checkbox"/>	⌚	RTWE_Time	GAMMARAY	gAPI			30	
<input checked="" type="checkbox"/>	⌚	RTWE_Time	HDEPTH	ft			30	
<input checked="" type="checkbox"/>	⌚	RTWE_Time	HKL	kibm			30	
<input checked="" type="checkbox"/>	⌚	RTWE_Time	ROP	ft/h			30	
<input checked="" type="checkbox"/>	⌚	RTWE_Time	RPM	rpm			30	
<input checked="" type="checkbox"/>	⌚	RTWE_Time	SPP	psig			30	
<input checked="" type="checkbox"/>	⌚	RTWE_Time	WOB	kibm			30	

Monitor Trajectory

This section should display with the following columns.

- **Add Trajectory:** On click user can add a trajectory.
- **Trajectory:** Displays the the name of Trajectory.View and edit the trajectory by clicking the edit icon, which opens a pop-up window displaying available trajectory for selection.
- **Time Log | Depth Curve** Time log and Depth curve list will be displayed in the dropdown.User can select the required log and curve from the list
 - Time Log : Time logs will be displayed from the wellbore based on the selected trajectory
 - Depth Curve: Depth curve list is displayed based on the time log list
- **Frequency(ft):** It allows the user to enter the value in feet based on the station values.
- **Delete button:** User can delete each trajectory
- Fields are free to edit

• **What's New!**

- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

• **Application Modules**

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

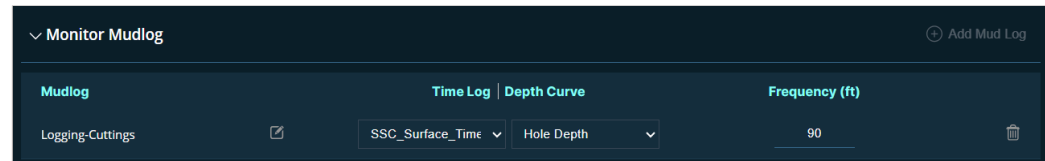
• **Downloads**

- Brochure
- User's Manual PDF

Monitor Mud Log

This section will display with the following columns.

- **Add Mudlog:** On click user can add a Mudlog.
- **Mud Log:** This describes the name of the Mudlog.
- **Time log | Depth curve:** user can enter the curve which is critical. If it is a critical curve system will be filling the gaps for the complete logs for that type.
 - Time Log : Time logs will be displayed from the wellbore based on the selected mud log
 - Depth Curve: Depth curve list is displayed based on the time log list
- **Frequency(ft):** Allows the user to enter the value in feet based on the geology interval.
- **Delete button:** User can delete each Mudlog.
- Fields are free to edit



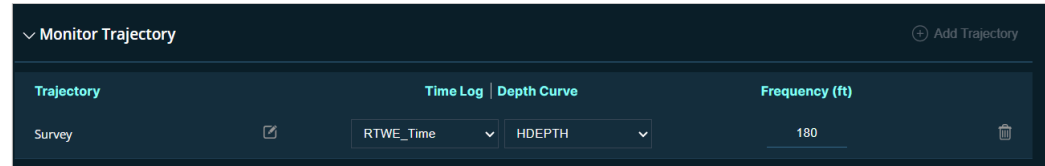
Import History

This section will display the activities happened in the rules editor page

The Import History section provides a comprehensive overview of the actions that have taken place on the page.

This section is organized into three columns:

- **Action:** This column displays a concise description of the actions that occurred on the page.
- **Date:**The Date column indicates the specific date on which each action took place. This information allows users to track the chronological sequence of events.
- **User:**The User column provides the name of the user responsible for each action. This helps in attributing actions to specific individuals and facilitates accountability.



- **What's New!**
- **Introduction**
- **Access and Credentials**
- **User permissions**
- **Application Overview**
- **Navigating The Application**
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- **Application Modules**
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- **Downloads**
 - Brochure
 - User's Manual PDF

Import History

Action	Date	User
Critical Curve is updated to BST Gamma Ray BC RT for SSC_Downhole_Time in time logs	19 Apr 2024 16:01:50	Yamuna Rani
UOM is updated to gAPI for SSC_Downhole_Time in time logs	19 Apr 2024 16:01:50	Yamuna Rani
Critical Curve is updated to BST Gamma Ray BC RT for SSC_Downhole_Depth in depth logs	19 Apr 2024 16:01:50	Yamuna Rani
UOM is updated to gAPI for SSC_Downhole_Depth in depth logs	19 Apr 2024 16:01:50	Yamuna Rani
Time Log is updated to SSC_Surface_Time for SSC_Downhole_Depth in depth logs	19 Apr 2024 16:01:50	Yamuna Rani
Depth Curve is updated to Hole Depth for SSC_Downhole_Depth in depth logs	19 Apr 2024 16:01:50	Yamuna Rani
SSC_MAXACT_Depth removed from depth log	19 Apr 2024 15:28:20	Yamuna Rani
SSC_MAXACT_Time removed from time logs	19 Apr 2024 15:26:59	Yamuna Rani
SSC_Cementing_Time removed from time logs	19 Apr 2024 15:26:59	Yamuna Rani
Template created	12 Apr 2024 15:34:18	Hemalatha Jothi

Data Sources Viewer

This is a read-only source screen, where data from the RTS Feed and InSite agent is automatically populated. This data is acquired from the rig using WITSML Feed or InSite.

Following Fields are displayed in the source screen:

Field	Description
Server Name	Describes the name of the server.
Source Type	Displays Insite and RTS Witsml Feed as inputs.
URL	Server URL will be displayed

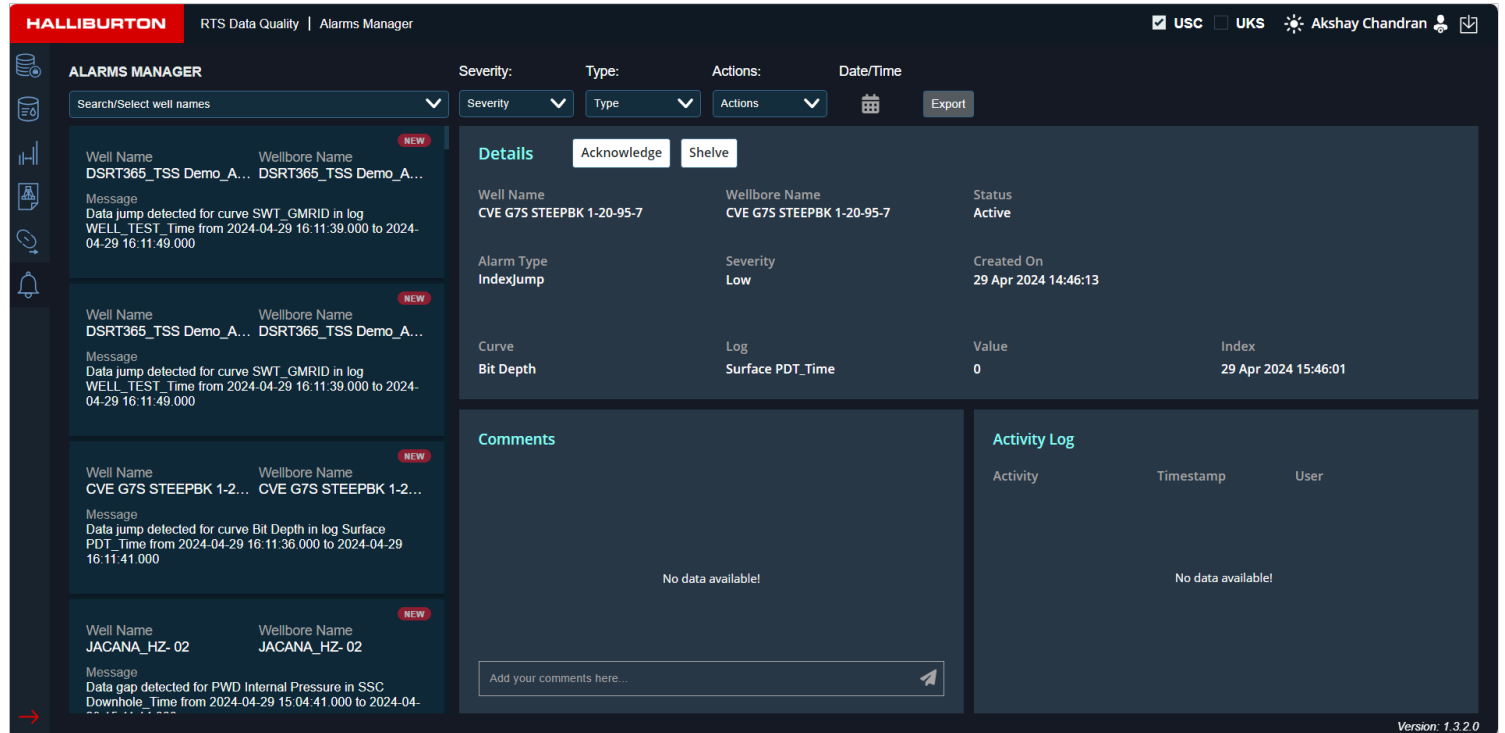
- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF

Server Name	Source Type	URL
PE	-	-
AZUSCRTSS103.corp.halliburton.com, 10.123.254.103	-	-
AZUSCRTSS171.corp.halliburton.com, fe80::222:48ff:feab:c858%4	-	-
AZUSCRTSS139.corp.halliburton.com, fe80::20d:3aff:fe77:1724%4	-	-
AZUSCRTSS029.corp.halliburton.com, fe80::20d:3aff:fe63:62e8%15	-	-
AZUSCRTSS099.corp.halliburton.com, fe80::20d:3aff:fe73:93da%5	-	-
AZUSCRTSS162.corp.halliburton.com, fe80::20d:3aff:fe71:1ff4%11	-	-
AZUSCRTSS041.corp.halliburton.com, fe80::20d:3aff:fe63:6edd%7	-	-
AZUSCRTSS043.corp.halliburton.com, fe80::6245:bdff:fee1:da73%7	-	-
AZUSCRTSS096v.corp.halliburton.com, fe80::6245:bdff:fee3:1bc9%10	-	-
AZUSCRTSS136.corp.halliburton.com, fe80::20d:3aff:fe77:1dfe%5	-	-
AZUSCRTSS061.corp.halliburton.com, fe80::6245:bdff:fee3:bf2d%7	-	-
AZUSCRTSS022.corp.halliburton.com, fe80::20d:3aff:fe64:16b7%15	-	-

ALARMS MANAGER

The Alarms Manager interface serves as a pivotal tool for monitoring and managing alarm incidents effectively. It offers a comprehensive overview of alarm details and their historical context. Comprising four distinct sections, namely the Well List, Details, Comments, and Activity Log, this interface empowers users with actionable insights into alarm occurrences.

- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF



- Sections overview
 - Well List
 - Details
 - Comments
 - Activity Log

Well/Wellbore List

This section comprises a list of well details that have triggered an alarm. Users can view the details of the selected well in the Details Section.

- Users can search/select well names by clicking on the dropdown

Well details are displayed in a card format:

- Well Name
- Wellbore Name
- Message

• **What's New!**

• Introduction

• Access and Credentials

• User permissions

• Application Overview

• Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

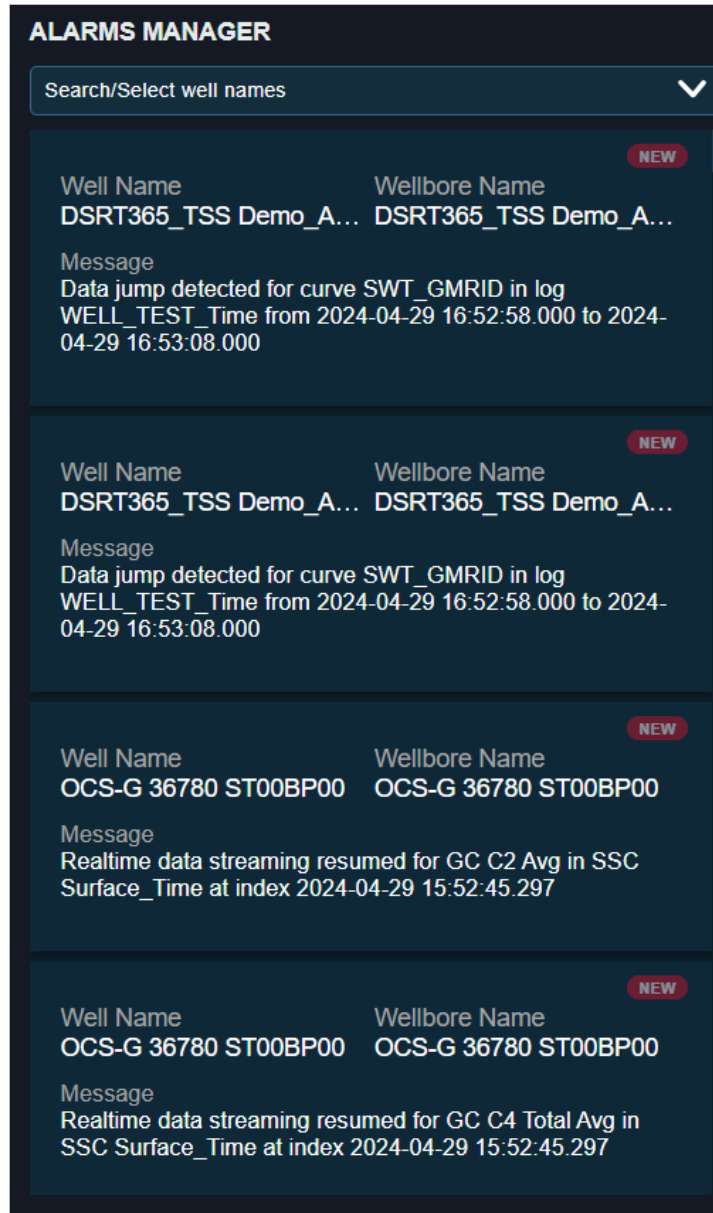
• Application Modules

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

• Downloads

- Brochure
- User's Manual PDF

- If the alert is New, it will be displayed at the top-right corner in red color



Details Section

• **What's New!**

- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme

• **Application Modules**

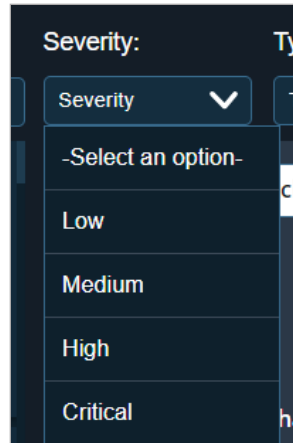
- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

• **Downloads**

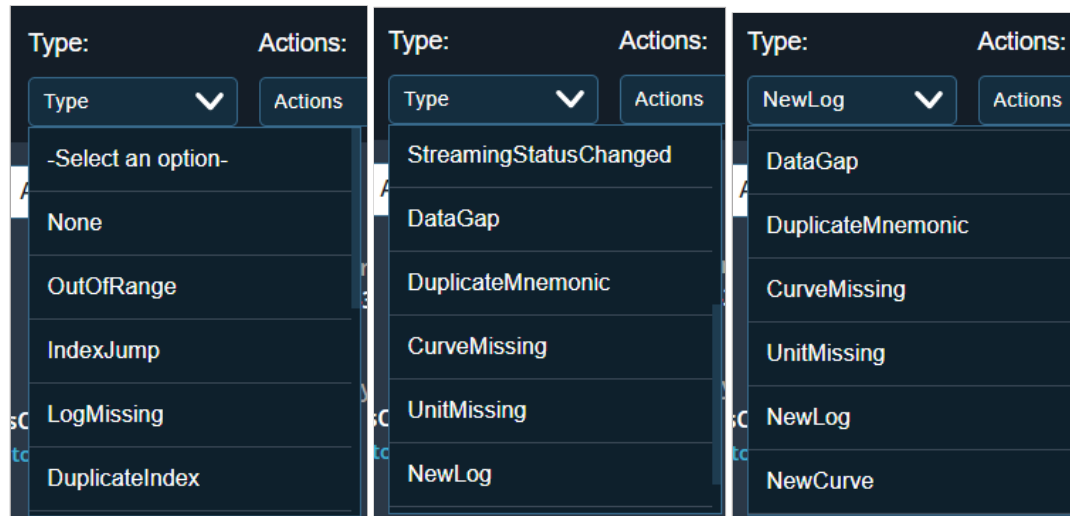
- Brochure
- User's Manual PDF

Within the "Details" tab, users can find the following information:

- Dropdown filter operations: Users can filter the list of alarms based on Well, Severity, Type, and Actions
- Severity: Severity levels can be selected from the dropdown



- Type: Users can select the type of alarm from the dropdown



- **Actions:**

- Active
- Shelved

- **What's New!**

- Introduction

- Access and Credentials

- User permissions

- Application Overview

- Navigating The Application

- Login Page
- Menu
- Application Topbar
- Theme

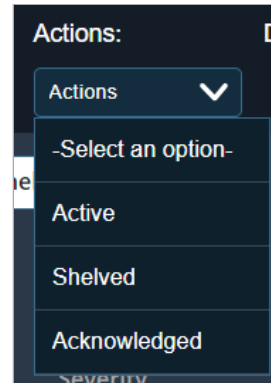
- Application Modules

- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

- Downloads

- Brochure
- User's Manual PDF

- Acknowledged
- Date/Time:



- Export: This option will be enabled when the well name is selected from the dropdown list. Users can select the dates from the date option and based on that the data will be exported.

Attaching sample CSV file for reference.

[Sample File](#)

Alarm Details based on selected filter options:

- Well Name: Displays the name of the associated well.
- Wellbore: Shows the name of the linked wellbore.
- Status: Indicates the current alarm status (Active, Shelved, or Acknowledged).
- Alarm Type: Displays the category of the alarm.
- Severity: Display the selected severity
- Created On: Shows the date and time when the alarm was created.
- Curve Details: Provides specific information about the alarm's associated log name and value.
- Log: Will display the type of Log: Time/Depth
- Value: Will display the value of the curve
- Index: Will display the index value of the curve
- Actions:

- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF

The screenshot shows a dark-themed interface for an alarm. At the top, there are two buttons: 'Acknowledge' and 'Shelve'. Below the buttons, the alarm details are displayed in a table-like format:

Well Name AM_Test_Well	Wellbore Name AM_Test_Well	Status Active	
Alarm Type Indexjump	Severity Low	Created On 29 Apr 2024 15:58:17	
Curve Depth	Log Surface_log_Time	Value 0	Index 29 Apr 2024 16:58:12

- Shelve: Allows shelving of the alarm. Users can select shelving options and provide reasons.

- **What's New!**

- Introduction

- Access and Credentials

- User permissions

- Application Overview

- Navigating The Application

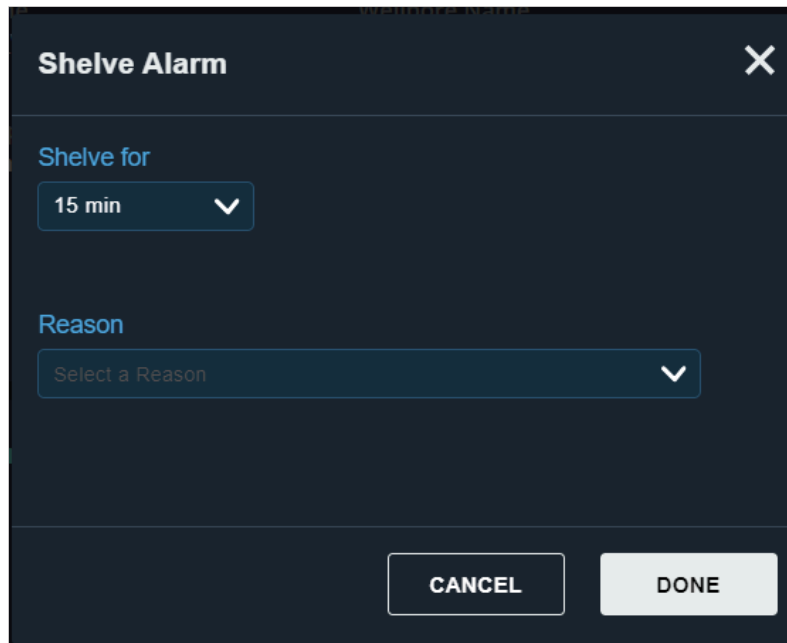
- Login Page
- Menu
- Application Topbar
- Theme

- Application Modules

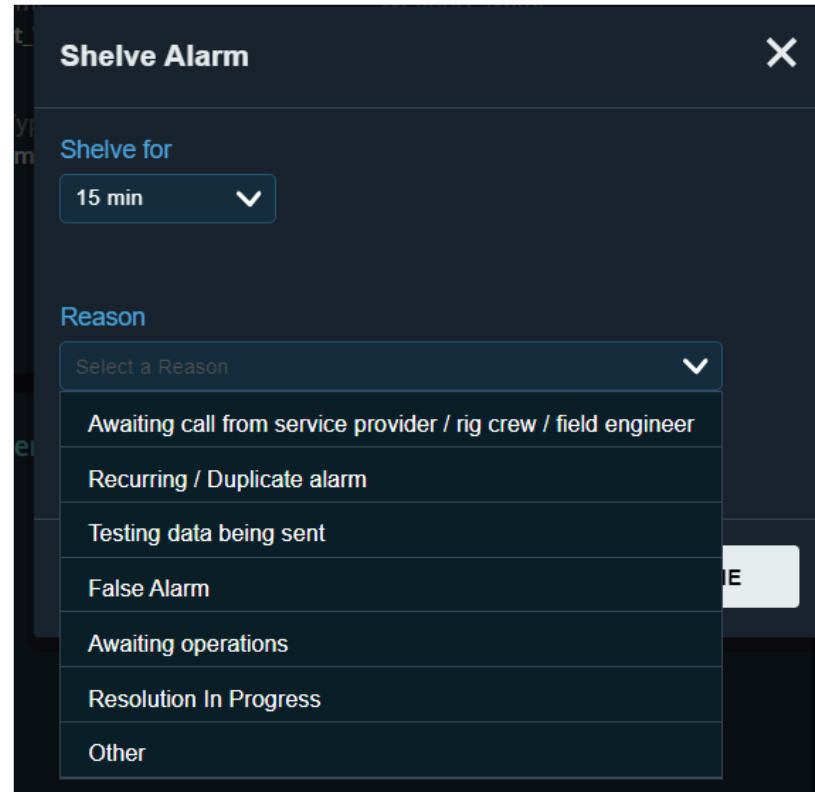
- Monitoring Dashboard
- Curve Monitoring Screen
- Gap Monitor
- Rules Editor
- Data Source Viewer
- Alarms Manager

- Downloads

- Brochure
- User's Manual PDF



- **What's New!**
- Introduction
- Access and Credentials
- User permissions
- Application Overview
- Navigating The Application
 - Login Page
 - Menu
 - Application Topbar
 - Theme
- Application Modules
 - Monitoring Dashboard
 - Curve Monitoring Screen
 - Gap Monitor
 - Rules Editor
 - Data Source Viewer
 - Alarms Manager
- Downloads
 - Brochure
 - User's Manual PDF



- Acknowledge: Acknowledge the alarm.

Activity Log

The "Activity" tab focuses on re-triggered alarms occurring during shelved time. It provides historical data on alarm activities.

- Activity: Displays re-triggered activities after shelving.
- Timestamp: Shows the time and date of each event.
- User: Displays user details associated with each activity.