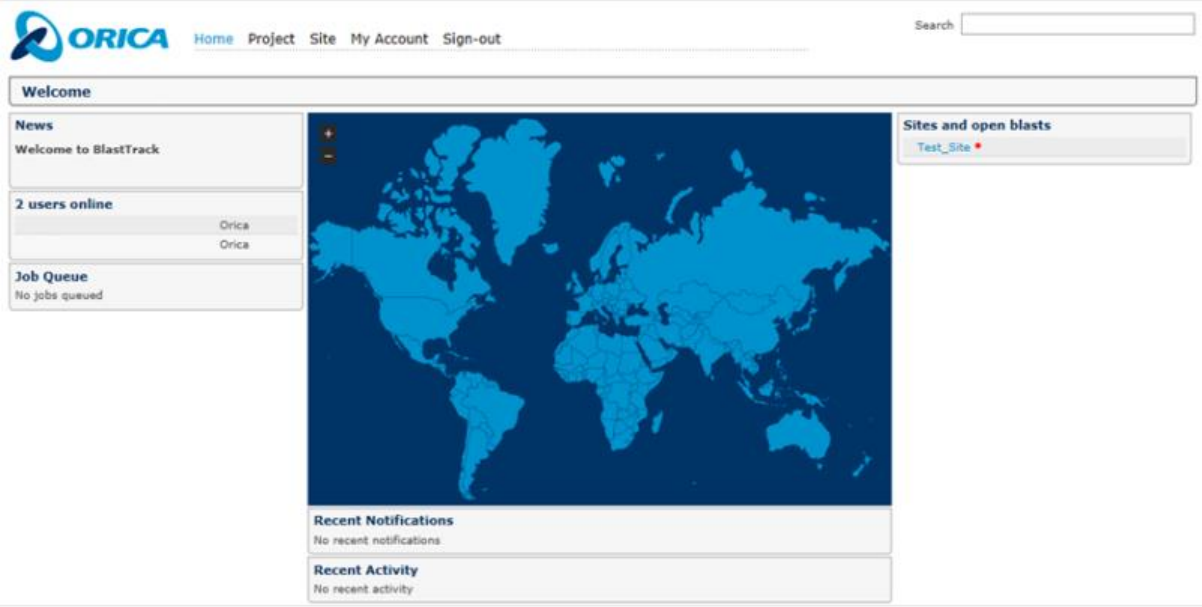
BLASTIQ

OPERATING MANUAL



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DOCUMENT CONTROL

DOCUMENT NO.: ORICA-EXP-BIQ-001

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LIST OF REVISIONS

Revision	Summary of Revision Content	Date	By Whom
0	Original Issue - BlastIQ Build 1.16	08/2015	S Feeney
A	Second Issue - BlastIQ Build 1.19	12/2015	S Feeney
B			
C			
D			
E			
F			
G			
H			
I			
J			
K			
L			
M			

Section Revisions		Date	Rev
Section 1	General Overview	08/2015	0
Section 2	BlastIQ Software Initialisation	08/2015	0
Section 3	BlastIQ Roles Defined	08/2015	0
Section 4	Using BlastIQ as a Viewer	08/2015	0
Section 5	Using BlastIQ as a Contributor	08/2015	0
Section 6	Using BlastIQ as an Editor	08/2015	0
Section 7	Using BlastIQ as a Site Manager	08/2015	0
Section 8	Installing SHOTPlus 5	08/2015	0
Section 9	Using SHOTPlus 5 with BlastIQ	08/2015	0
Section 10	Blaster's Desktop	08/2015	0

The document user is encouraged to improve the accuracy and currency of this document.

If this manual does not accurately reflect the current configuration / practices of this software suite, the document user is to contact the BlastIQ Technical Lead to arrange for the documentation to be updated by the Projects & Technology Technical Officer.

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MANUAL SYMBOLS

The following symbols may appear in this manual. They are used to alert the reader to potential safety issues or references to external documents.

Reference to an external electronic or hardcopy document.

Reference to qualification / training requirements.

NOTICE

To address practices not related to personal injury.

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury. WARNING signs should not be used for property damage hazards unless personal injury risk appropriate to this level is also involved.

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury. DANGER signs should not be used for property damage hazards unless personal injury risk appropriate to these levels is also involved.

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1 GENERAL OVERVIEW

Section Revision:	0	Revision Date:	August 2015

1.1 OVERVIEW

Orica's BlastIQ system is a combination of proprietary technologies that connect the Blasting Process from Design through to Reporting with a high degree of consistency, traceability and interoperability.

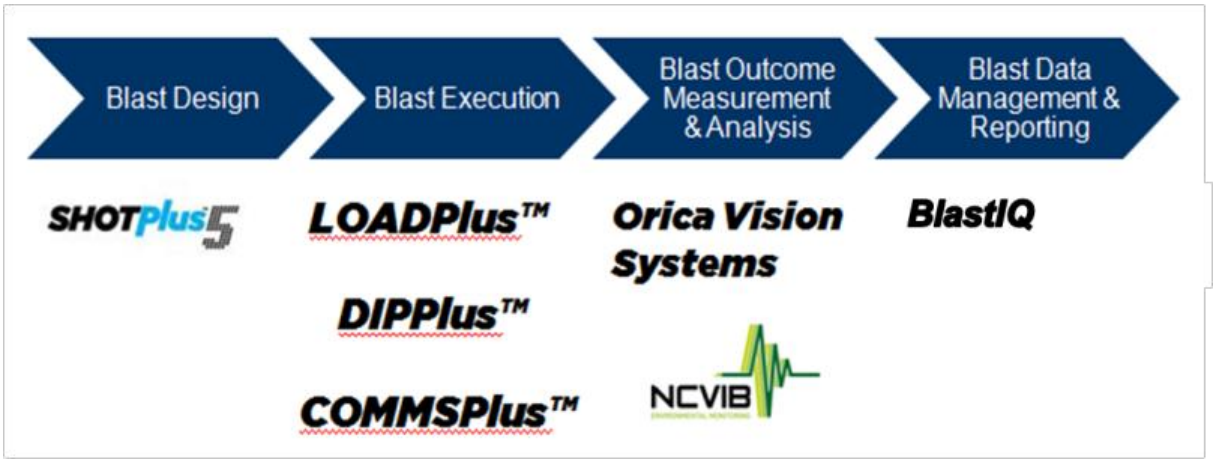


Figure 1-1: BlastIQ system flowchart

NOTICE

The BlastIQ system was initially developed as BlastTrack. Some parts of the system and some screenshots used in this Operating Manual may display the old naming convention.

1.2 THE MINING CYCLE

BlastIQ aligns with many aspects of the mining cycle.

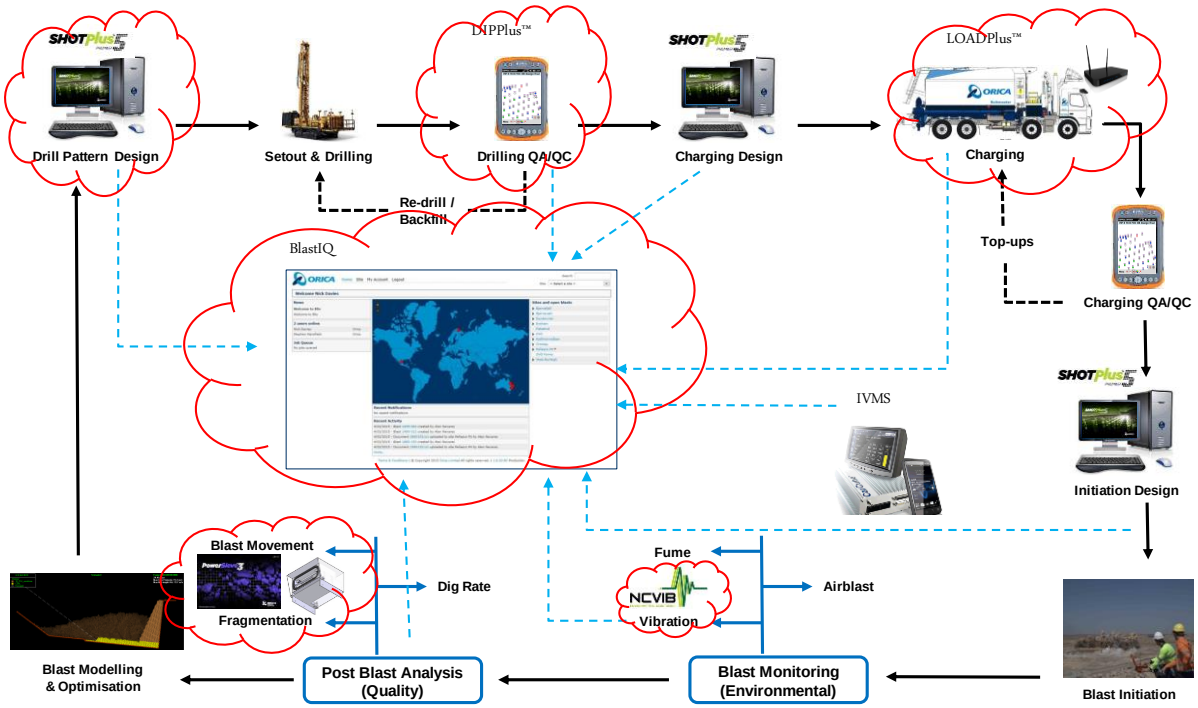


Figure 1-2: Technologies used during the mining cycle

2 BLASTIQ SOFTWARE INITIALISATION

Section Revision:	**0**	**Revision Date:**	**August 2015**

2.1 OVERVIEW

This process is a one-off process for new users logging into BlastIQ for the first time.

2.2 INITIAL ACCESS OF BLASTIQ FOR CUSTOMERS

The following steps describe how to access BlastIQ for the first time.

You will receive a 'Welcome to BlastIQ' email. This email will contain a webpage link, your system username and an initial password.

1. Click on the website link provided in the email.

Hello Scott,

Welcome to BlastIQ.

1. Please visit us at https://blastiq.orica.com

2. Log in using
   Your new **username**: scott.feeney@ext.orica.com
   Your temporary **password**: 4[redacted]K

3. You will need to choose your own password.

Please contact me if you would like any assistance or to provide feedback.

Thank you and we hope you enjoy using BlastIQ.

Regards,

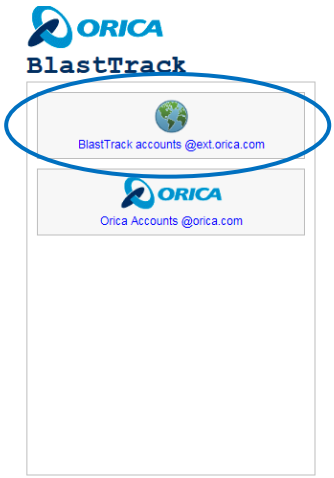
Austin

BlastIQ Support Team
Field Information Systems | Orica Pty Ltd
Kurri Technical Centre, 1151 George Booth Drive, Kurri Kurri NSW 2327
shotplus_support@orica.com
Orica | www.orica.com

The website provides access for Orica's customers and Orica's internal staff:

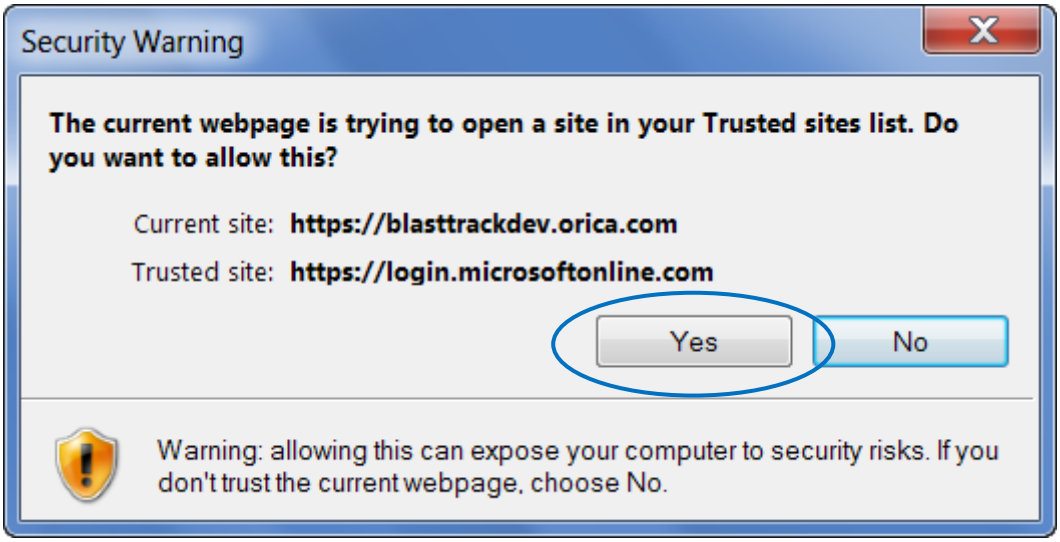
- The upper box provides external (customer) access.
- The lower provides internal (staff) access.

2. Select the **BlastTrack accounts @ext.orica.com** log-in box.



Depending upon your computer's security settings, you may receive a Security Warning.

3. Select **Yes**, if prompted.

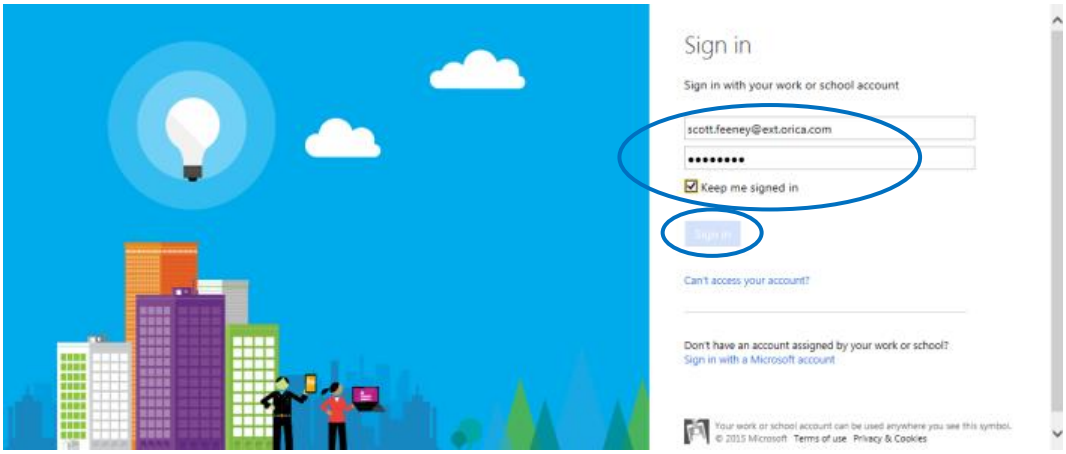


Orica uses Microsoft to manage the user authorisation for the BlastIQ system.

You will be redirected to a secure Microsoft webpage.

4. Enter the *username* and temporary *password* from the 'Welcome to BlastIQ' email.
5. Place a tick in the 'Keep me signed in' box.

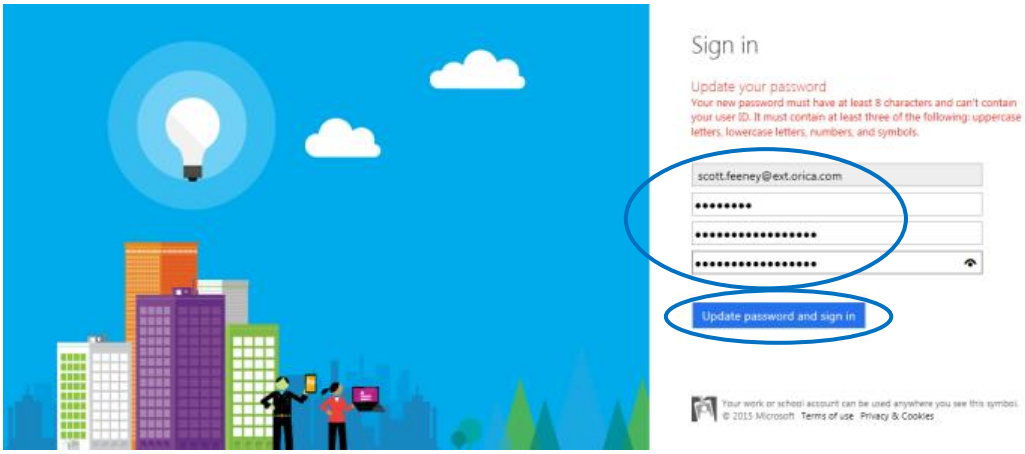
6. Select **Sign in**.



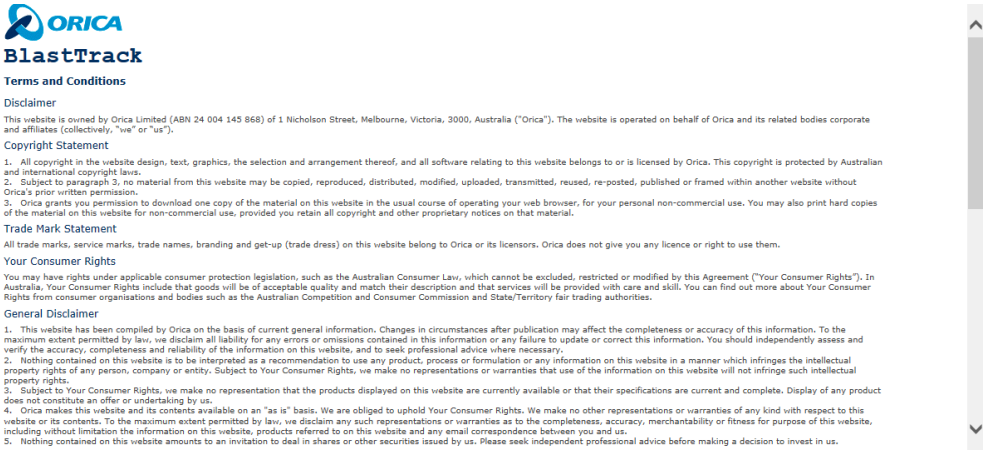
External (customer) users will be prompted to update their passwords.

As stated on the screen, the password *must have at least 8 characters and can't contain your user ID. It must contain at least three of the following: uppercase letters, lowercase letters, numbers, and symbols.*

7. Enter your new, secure password. Remember to save it somewhere safe.
8. Select **Update password and sign in**.



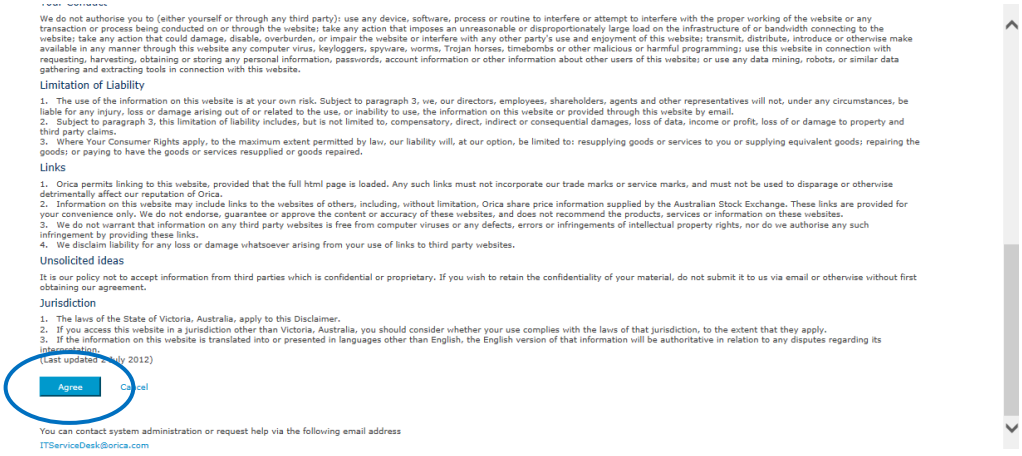
The first time, users of BlastIQ will be presented with the system's *Terms and Conditions*.



9. Read the *Terms and Conditions*.
10. Scroll down to the bottom of the window using the Scroll Bar.

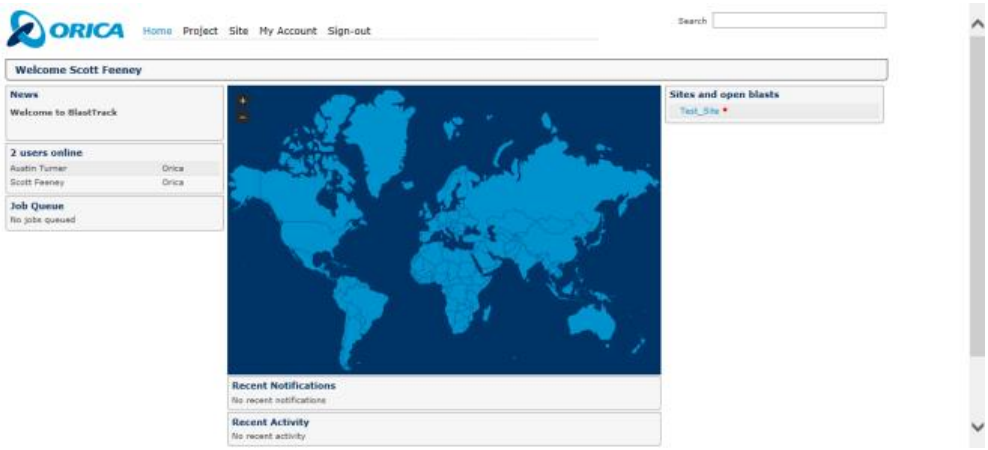
    Two options are presented:

    - *Agree* – you agree to use the software in the manner described in the *Terms and Conditions*.
    - *Cancel* – you do not agree to use the software in the manner described in the *Terms and Conditions*. Access ceases here.
11. Select **Agree**.



The user is then presented with the BlastIQ home screen.

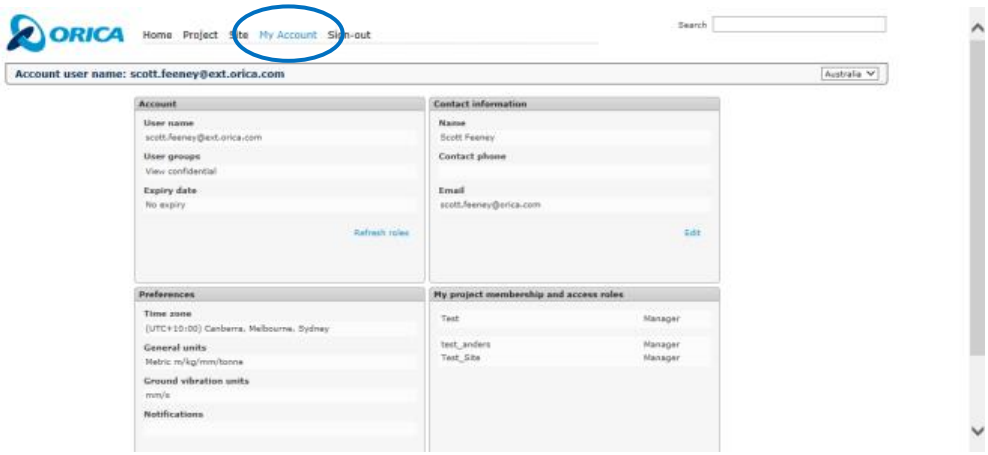
You may not be presented with any sites at this stage. Site access is requested from your local site administrator.



For help and support, please contact the Orica Global Service Desk:

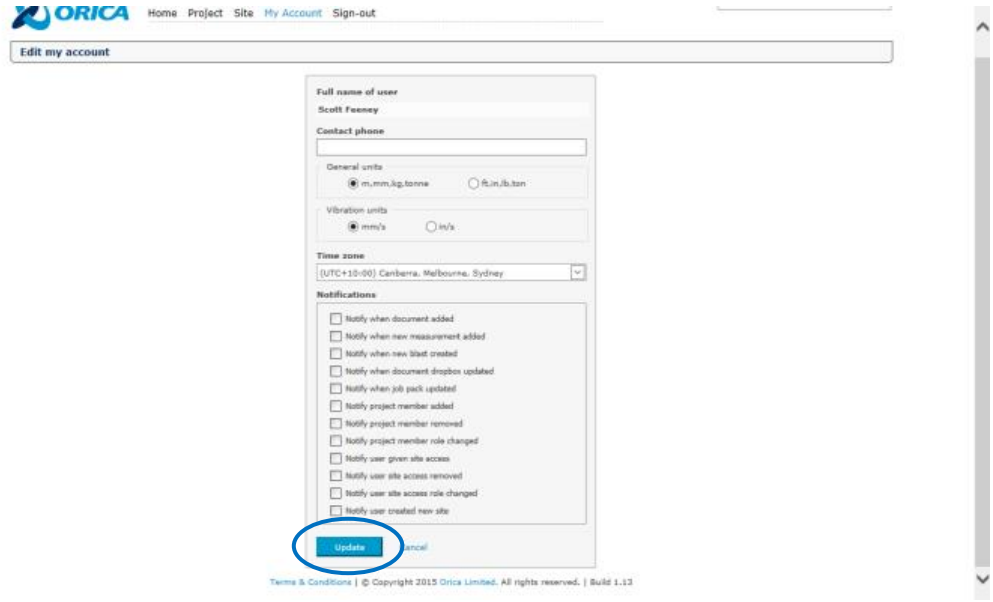
For External users: email itservicedesk@orica.com

12. Select **My Account** to modify the user preferences.



13. Add new information:
    - **Contact phone** number
    - **General units**
    - **Vibration units**
14. Select the **Time zone**.
15. Select required **Notifications**.

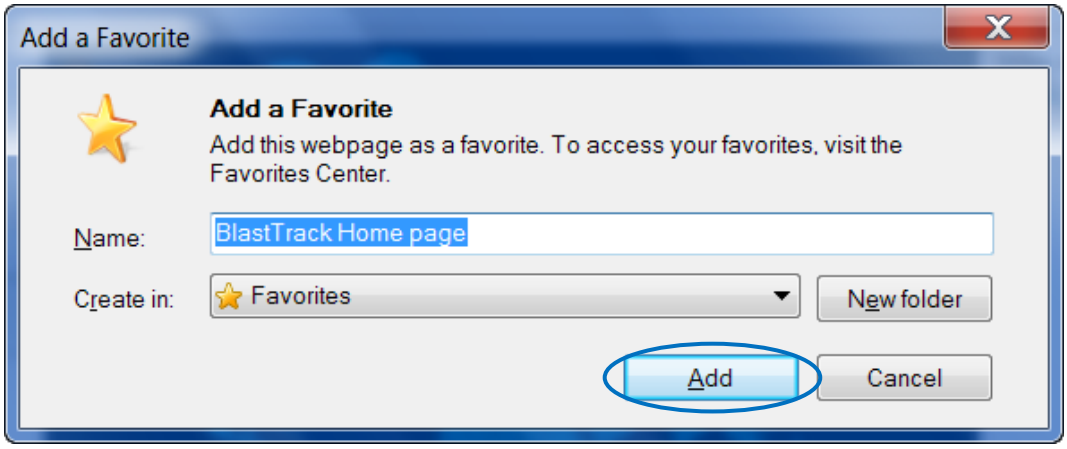
16. Select **Update** to save the new settings and information.



After the user preferences have been saved, please bookmark BlastIQ.

17. Select **Home** to return to the BlastIQ home page.
18. Select **[Ctrl]** + **[d]**.
19. If prompted with the following message, select **Add**.

    Some browsers will add a bookmark without this message.



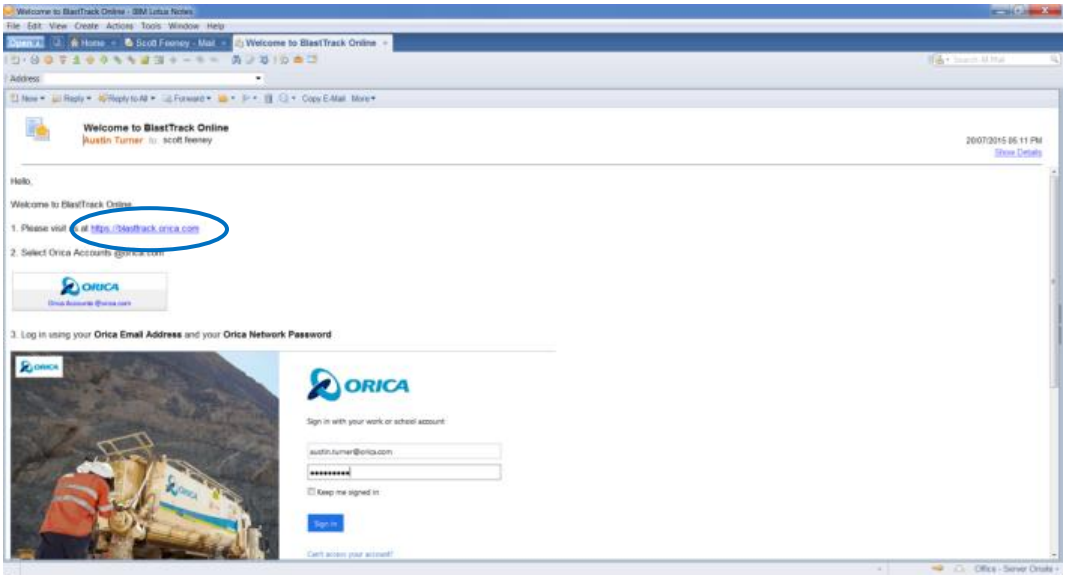
Future access to BlastIQ site can be performed via the bookmark created.

2.3 INITIAL ACCESS OF BLASTIQ FOR ORICA STAFF

The following steps describe how to access BlastIQ for the first time.

You will receive a 'Welcome to BlastIQ' email. This email will contain a webpage link and a brief version of these instructions.

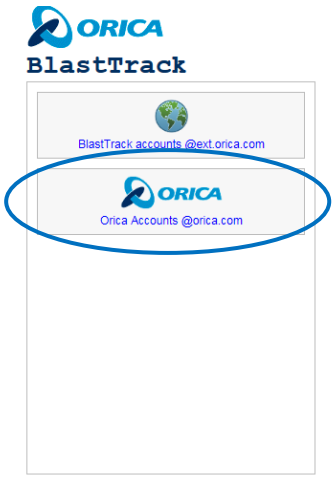
1. Click on the website link (https://blasttrack.orica.com) provided in the email.



The website provides access for Orica's customers and Orica's internal staff:

- The upper box provides external (customer) access.
- The lower provides internal (staff) access.

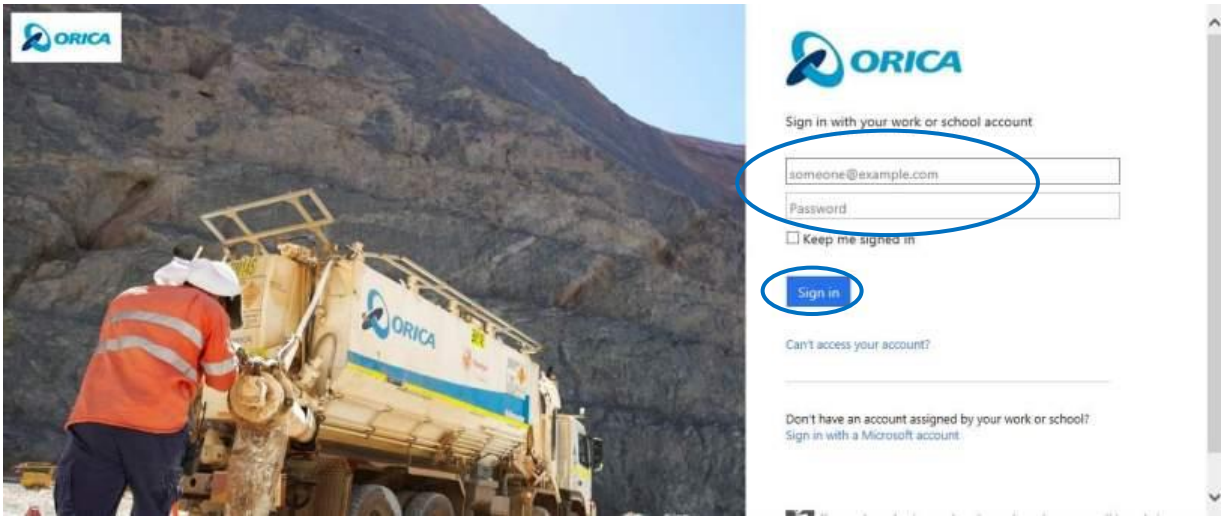
2. Select the **Orica Accounts @orica.com** log-in box.



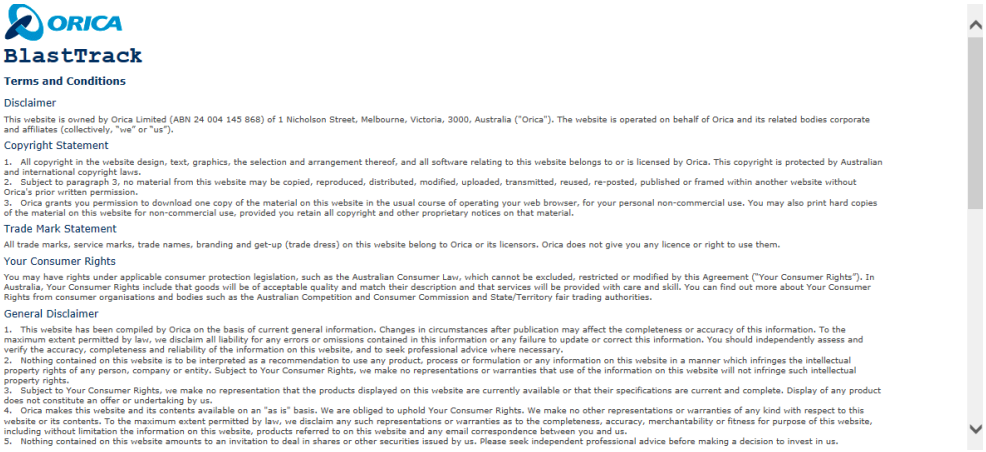
Orica uses Microsoft to manage the user authorisation for the BlastIQ system.

You will be redirected to a secure Microsoft webpage.

3. Enter your standard Lotus Notes **email address**
4. In internet explorer on Orica computers, you may be automatically signed in without entering a password
5. On other browsers, non-Orica computers and mobile devices, enter your Orica **password**.
6. Select **Sign in**.



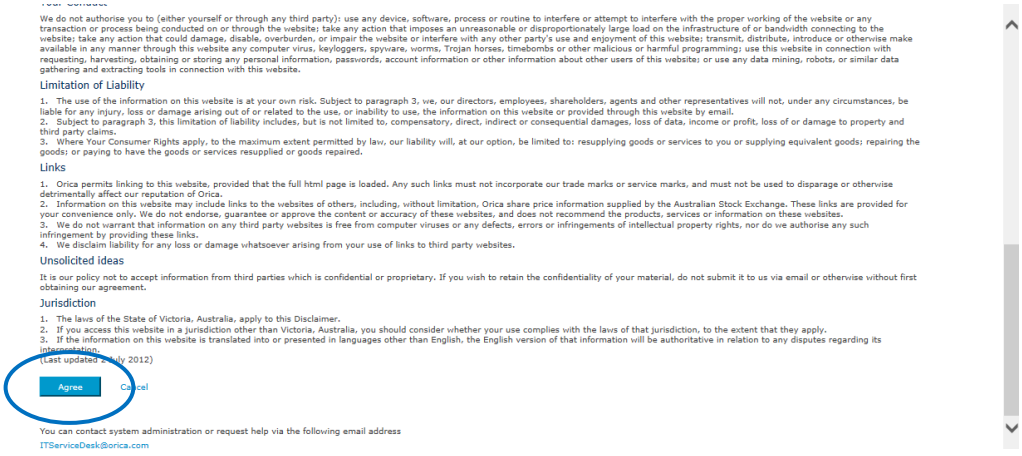
The first time, users of BlastIQ will be presented with the system's *Terms and Conditions*.



7. Read the *Terms and Conditions*.
8. Scroll down to the bottom of the window using the Scroll Bar.

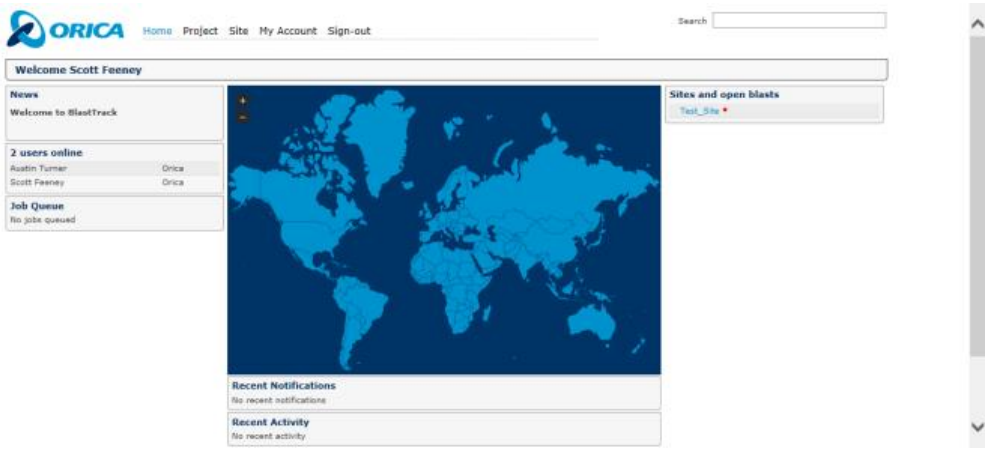
   Two options are presented:

   - *Agree* – you agree to use the software in the manner described in the *Terms and Conditions*.
   - *Cancel* – you do not agree to use the software in the manner described in the *Terms and Conditions*. Access ceases here.
9. Select **Agree**.



The user is then presented with the BlastIQ home screen.

You may not be presented with any sites at this stage. Site access is requested from your local site administrator.

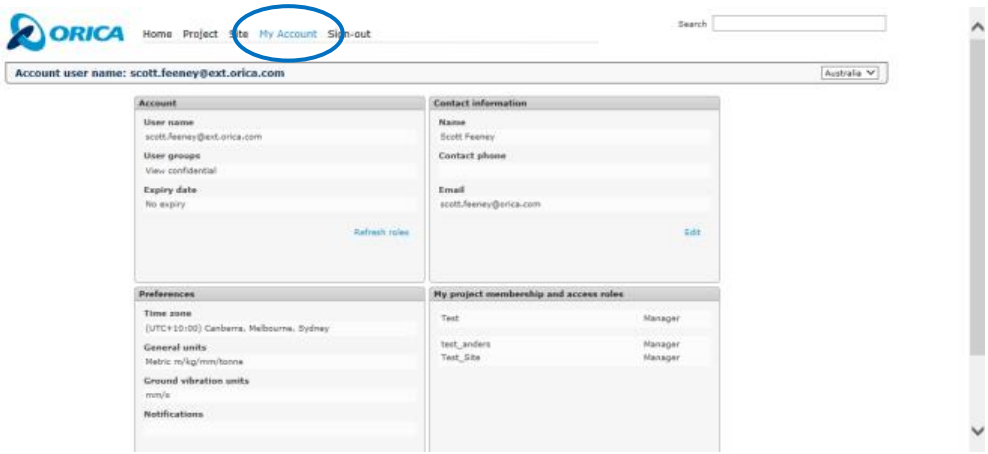


For help and support, please contact the Orica Global Service Desk:

For Orica users on the Orica network: https://orica.service-now.com/ess/

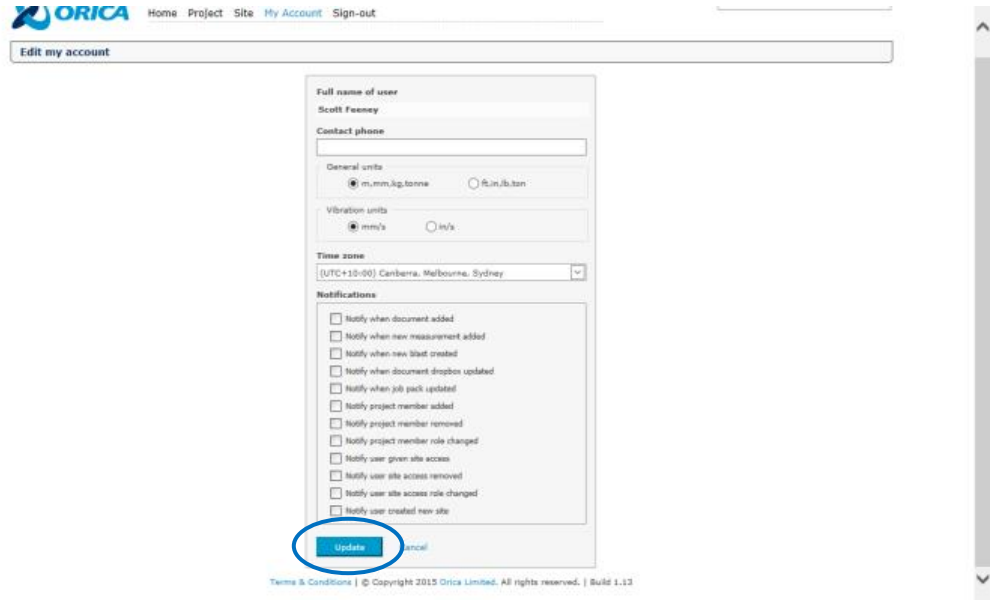
For all users: email itservicedesk@orica.com

10. Select **My Account** to modify the user preferences.



11. Add new information:
    - **Contact phone** number
    - **General units**
    - **Vibration units**
12. Select the **Time zone**, if required.
13. Select required **Notifications**.

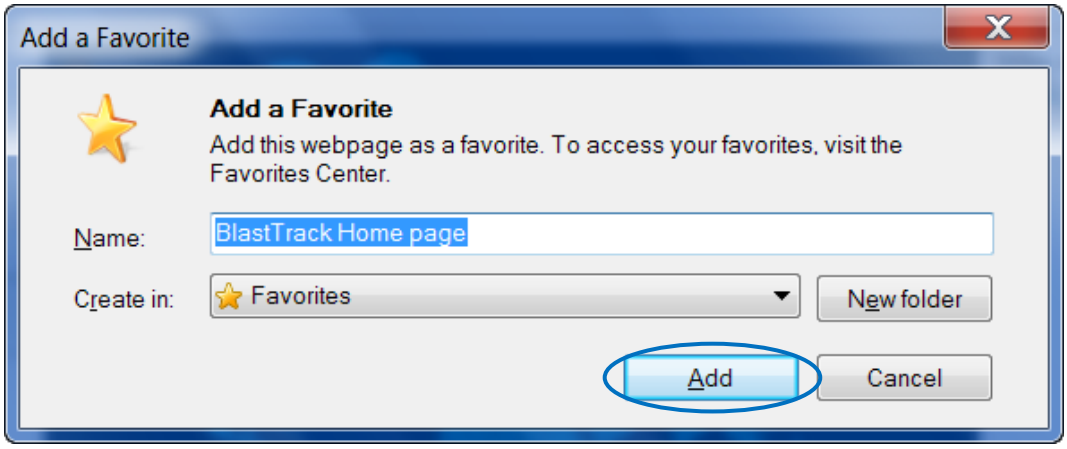
14. Select **Update** to save the new settings and information.



After the user preferences have been saved, bookmark BlastIQ.

15. Select **Home** to return to the BlastIQ home page.
16. Select **[Ctrl]** + **[d]**.
17. If prompted with the following message, select **Add**.

    Some browsers will add a bookmark without this message.



Future access to BlastIQ site can be performed via the bookmark created.

3 BLASTIQ ROLES DEFINED

Section Revision: 0 **Revision Date: August 2015**

3.1 OVERVIEW

Site Managers may view and edit the project definition and view and edit information in all project sites subject to the confidentially provisions.

Editors may view and edit all blasting information at a site subject to the confidentiality provisions.

Contributors may view all blasting information restricted by the confidentiality provisions and add new documents to a site.

Viewers may view all blasting information restricted by the confidentiality provisions at a site.

3.2 BLASTIQ USER ROLE PERMISSIONS

The user roles as defined in the BlastIQ system provide different levels of permission to perform system tasks. *Table 3 1: BlastIQ User Role Permissions* details which level of user can perform each task.

Table 3-1: BlastIQ User Role Permissions

Task	Viewer	Contributor	Editor	Site Manager
Viewer task	✓	✓	✓	✓
Contributor task		✓	✓	✓
Edit site information			✓	✓
Create and edit points of interest - upload points of interest from a SHOTPlus 5 file - create points of interest in BlastIQ - configure environmental monitors			✓	✓
Create new blasts			✓	✓
Edit the blast details - details - name - notes			✓	✓
Upload SHOTPlus 5 file			✓	✓
Edit blast properties			✓	✓
Record blast measures - blast measures - environmental measures			✓	✓
Complete the job pack - mark items as complete - add comments to job pack fields - job pack file uploads			✓	✓

Task	Viewer	Contributor	Editor	Site Manager
Use the Documents Manager - new folder creation - folder relocation - rename folder - folder deletion - upload a file using Documents Manager - download a file using Documents Manager - move a file using Documents Manager - delete a file using Documents Manager - make a file confidential using Documents Manager			✓	✓
Use the Images library			✓	✓
Use the Videos library			✓	✓
General site configuration - add site members - optional features - Confidential blast information - blast type descriptors - blast measures				✓
Create a job pack definition - configuring to upload a job pack item from file - configuring to upload a job pack item from SHOTPlus5 - configuring to manually enter a job pack item				✓
Configure site map - define site map coordinate system - upload a map overlay - select a default site map view				✓
Add news articles to site page				✓

4 USING BLASTIQ AS A VIEWER

Section Revision:	**0**	**Revision Date:**	**November 2015**

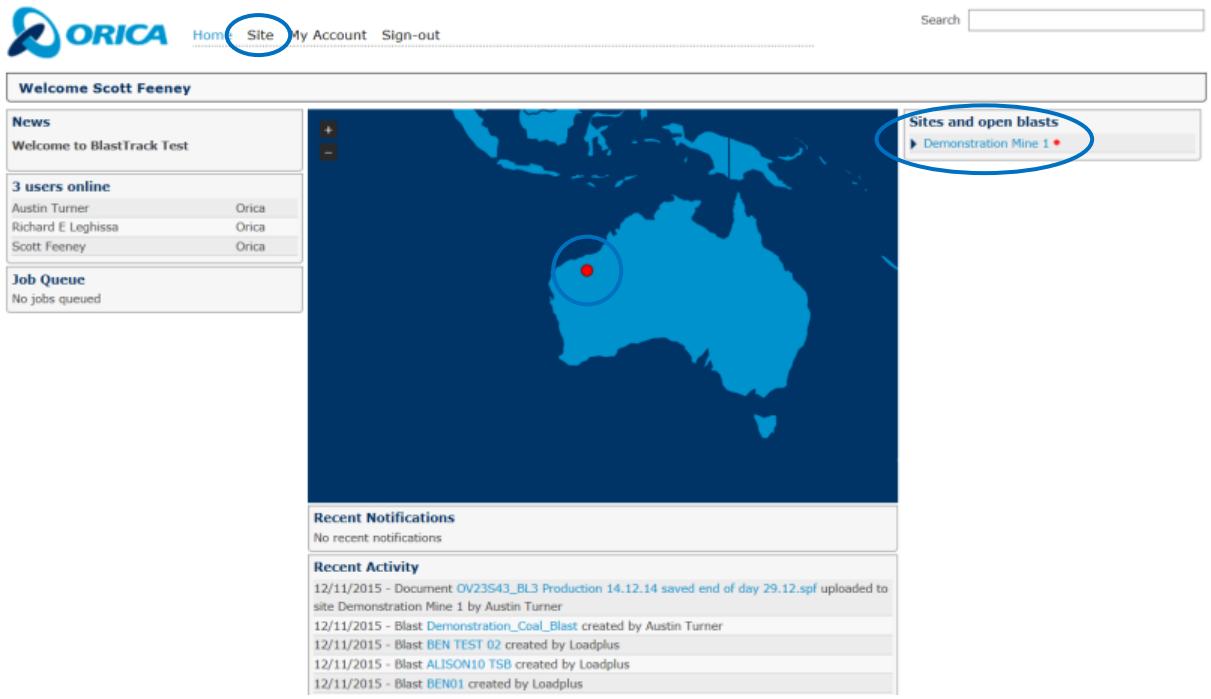
4.1 OVERVIEW

Viewers may view all blasting information restricted by the confidentiality provisions at a site.

4.2 VIEWING SITE INFORMATION

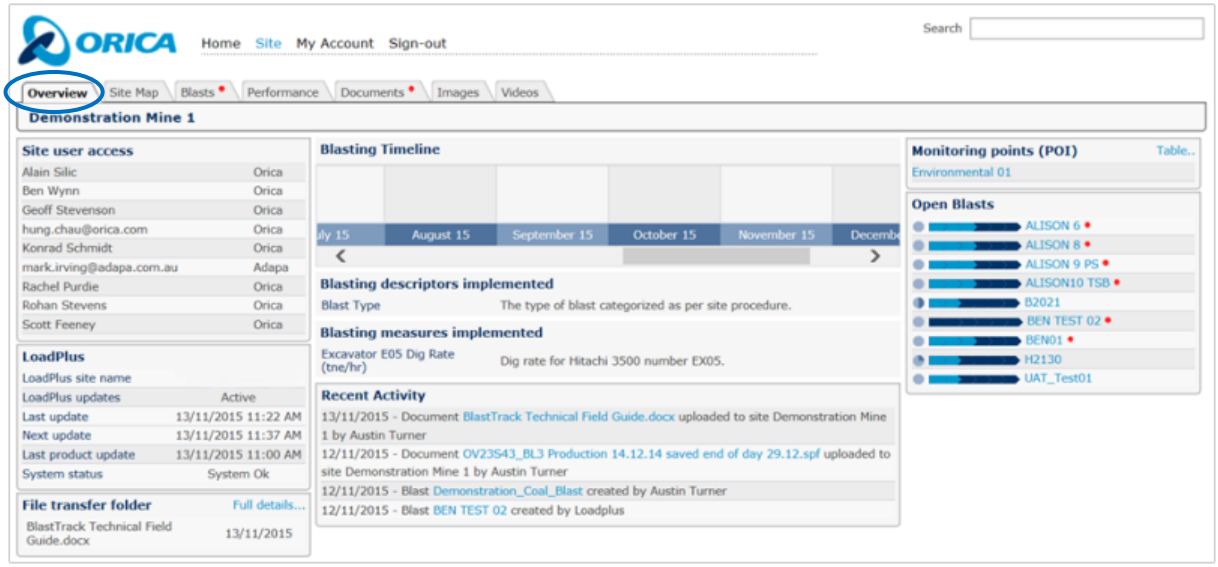
Access to sites on BlastIQ is available in three ways:

- Selecting the **site** hyperlink listed under *Sites and open blasts*
- Selecting the appropriate **red dot** (site location) on the map
- Selecting **Site** / site name



The site homepage is displayed.

NOTICE **To navigate to the view below, the 'Overview' tab may need to be selected. Each tab represents a different website area.**

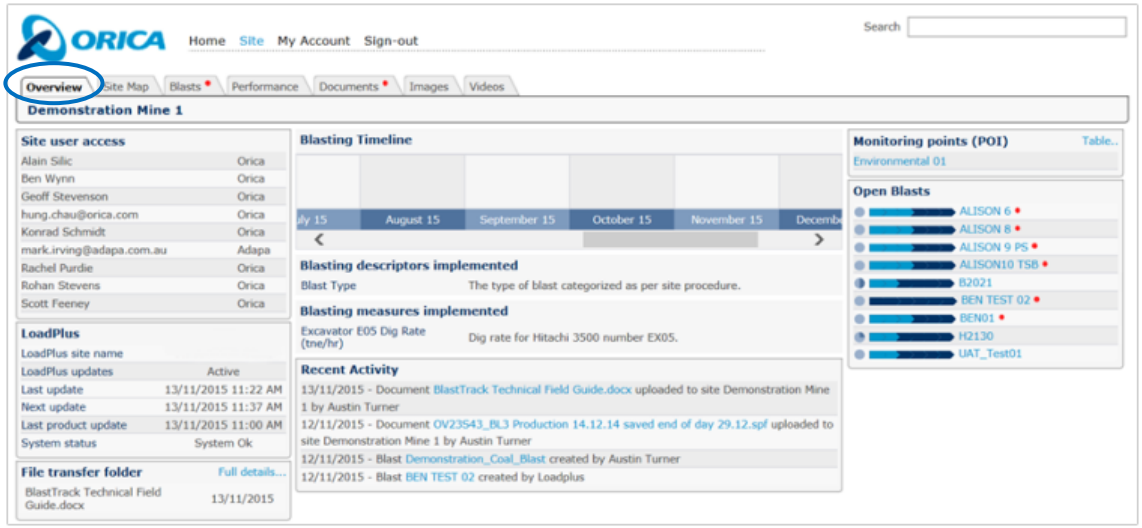


4.3 THE SITE OVERVIEW

The Site Overview view provides the user with information regarding:

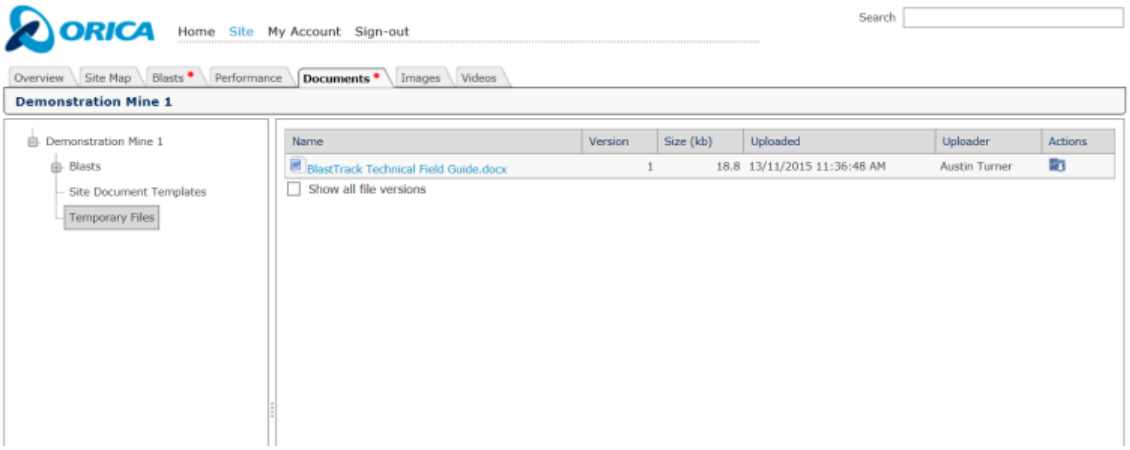
- Who has **Site user access**
- **LOADPlus** information, if the site is LOADPlus enabled
- **File transfer folder**
- **Blasting Timeline** for site blasts
- **Blasting descriptors implemented**
- **Blasting measures implemented**
- **Recent Activity**
- **Monitoring points (POI)**
- **Open Blasts**

1. Select the **Overview** tab.



4.3.1 Viewing Details of Transferred Files

1. Select **Full details…** (in the **File transfer folder** area).
2. The system goes to the **Documents** area for the site.



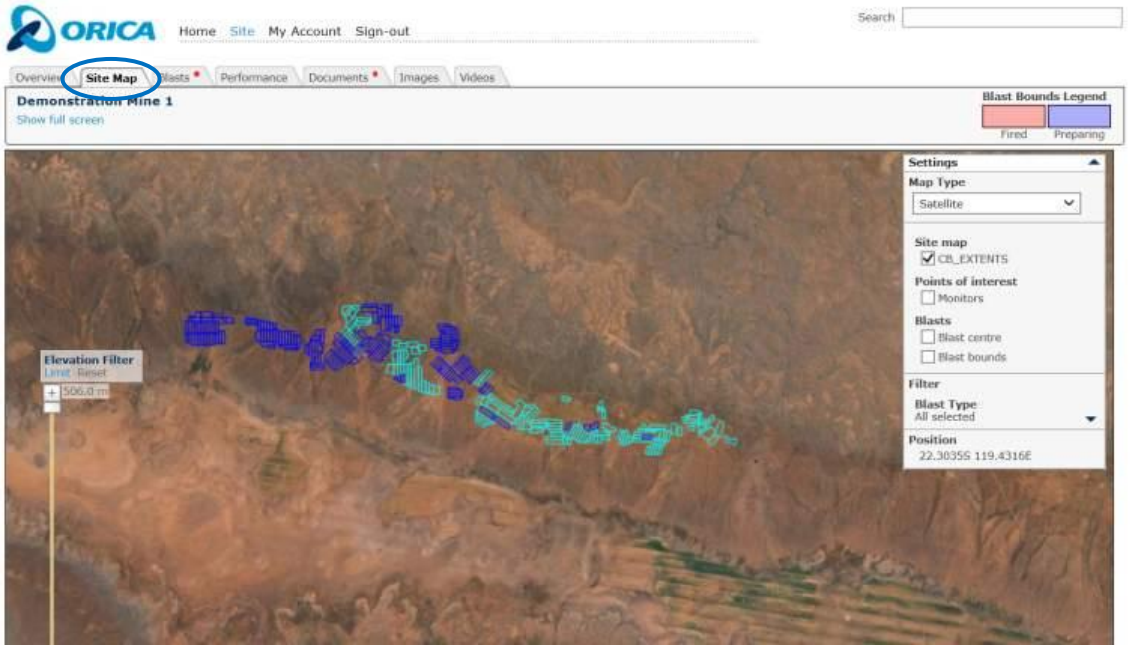
NOTICE

Selecting any item in light blue font takes the user to the relevant area of the website, i.e. selecting a document moves to Documents, selecting a blast moves to Blast.

4.4 VIEWING THE SITE MAP

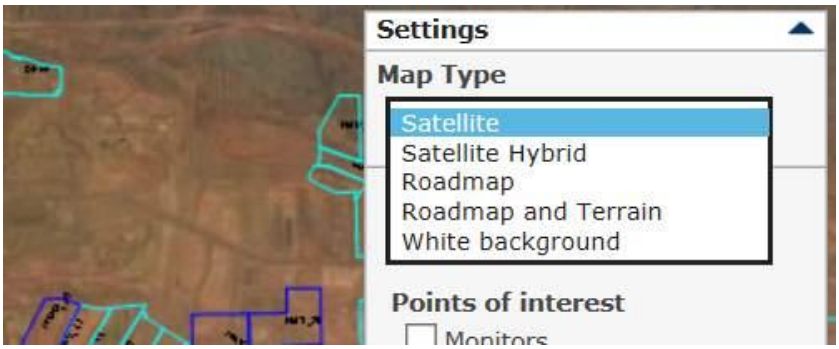
The maps used in BlastIQ are sourced from Google Maps.

1. Select the **Site Map** tab.

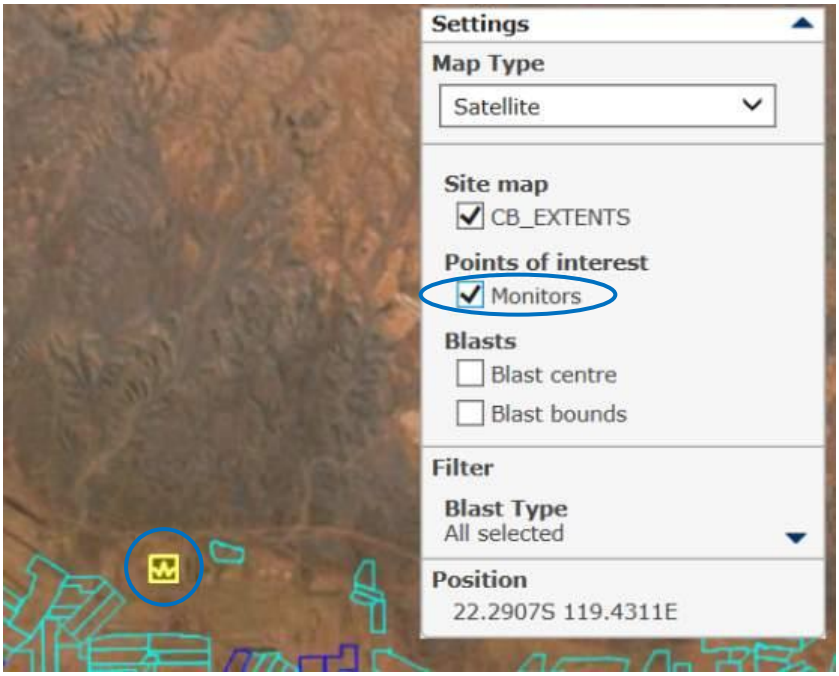


2. Move your location on the map by left-clicking and holding on the mouse and moving away to the new area.
3. Zoom in or out by using the mouse scroll wheel or **+** / **-** buttons.

4. The type of map displayed can be changed using the drop-down. Choices available are:
    - Satellite
    - Satellite Hybrid
    - Roadmap
    - Roadmap and Terrain
    - White background

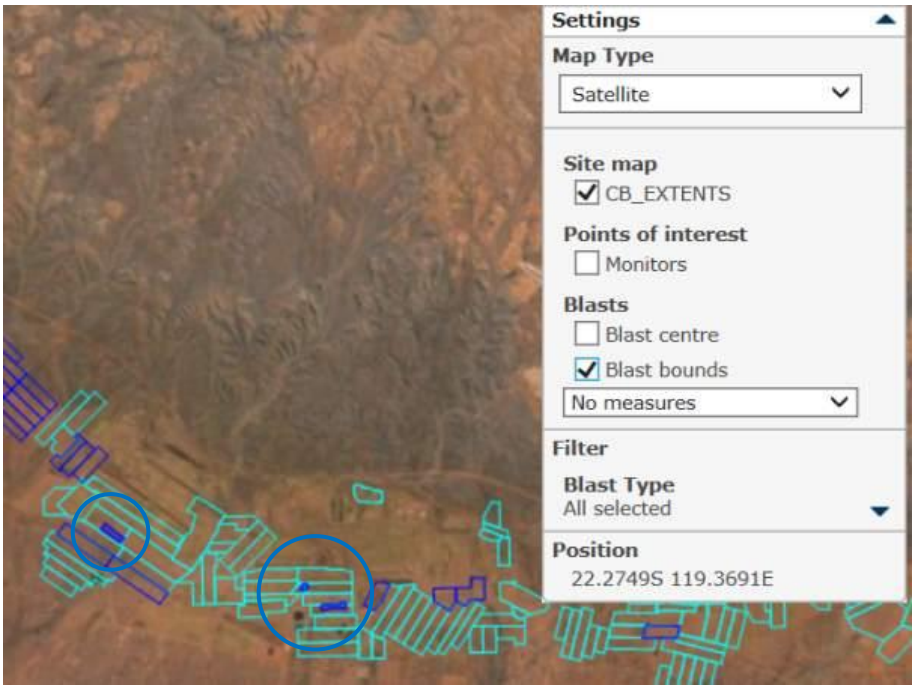


5. The location of monitors can be show by selecting **Monitors** (under **Points of Interest**).

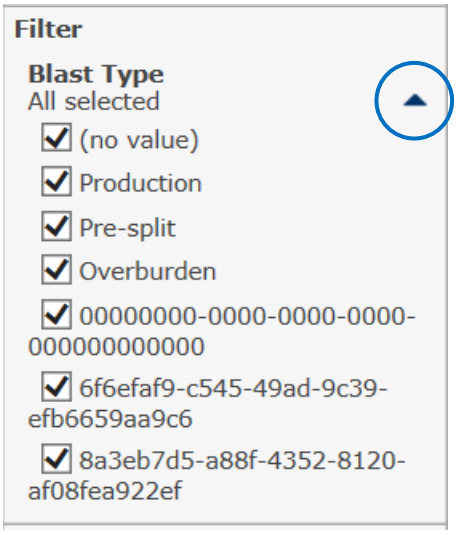


6. The locations of previously fired blasts can be show by selecting **Blast centre** (under **Blasts**).

7. The locations of blast bounds can be show by selecting **Blast bounds** (under **Blasts**).



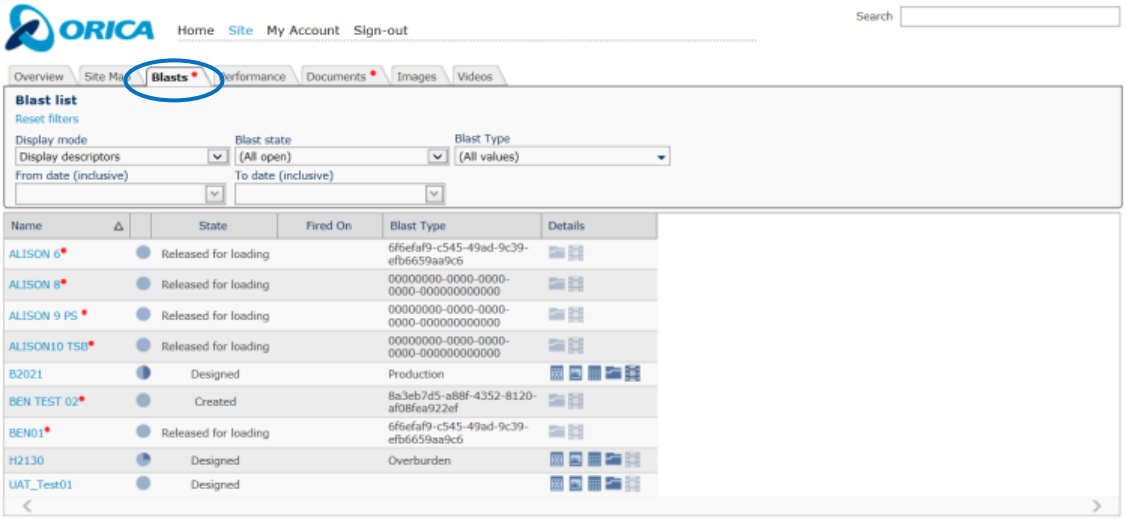
8. The type of blast being viewed can be modified using the dropdown menu arrow.



4.5 VIEWING THE SITE BLASTS

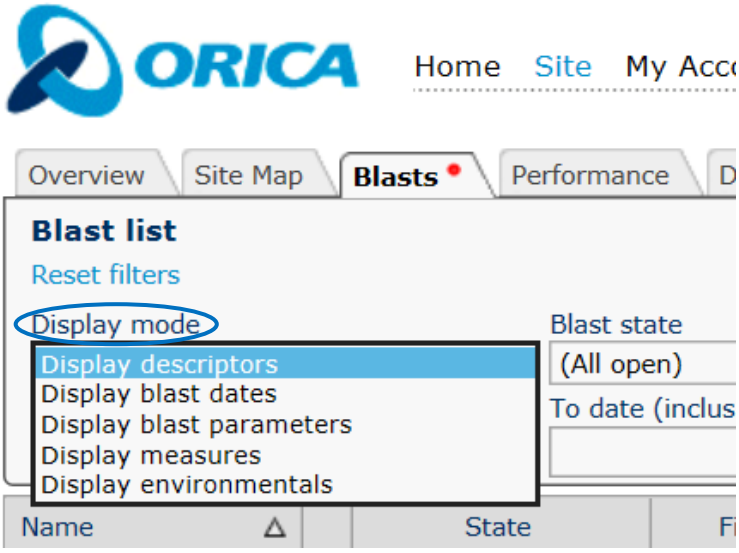
Site Blasts can be viewed in a number of ways. To do this:

1. Select the **Blasts** tab.



The display mode can be changed by:

2. Selecting the ‘drop-down’ arrow in the **Display mode** field.

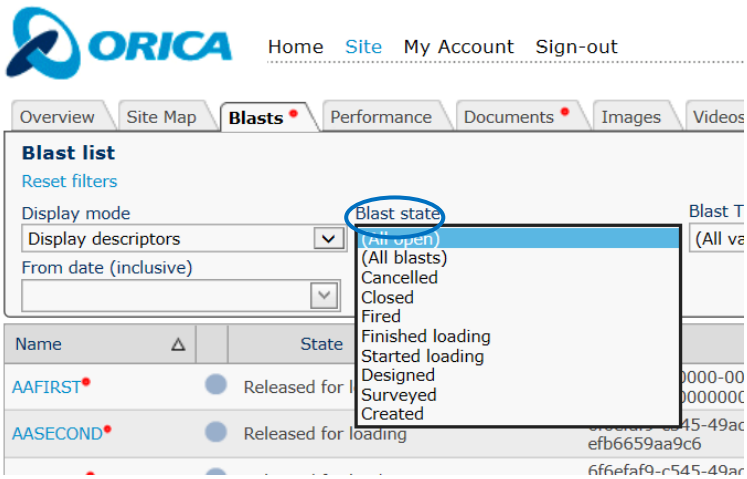


Modes available are:

- **Display descriptors** – Name, State, Fired On, Blast Type, Details
- **Display blast dates** – Name, State, Created by, Surveyed, Designed Started loading, Proposed firing, Fired On
- **Display blast parameters** – Name, Elevation, Design volume, Actual volume, Design Powder Factor (PF), Actual PF
- **Displays measures** – Name, predefined Measures (eg. Dig Rates)
- **Display environmental** – Name, Maximum Instantaneous Charge (MIC), Max. PPV, Recorded at POI, Max. over pressure, Recorded at POI

The state of the blast may be selected by:

3. Selecting the ‘drop-down’ arrow in the **Blast state** field.

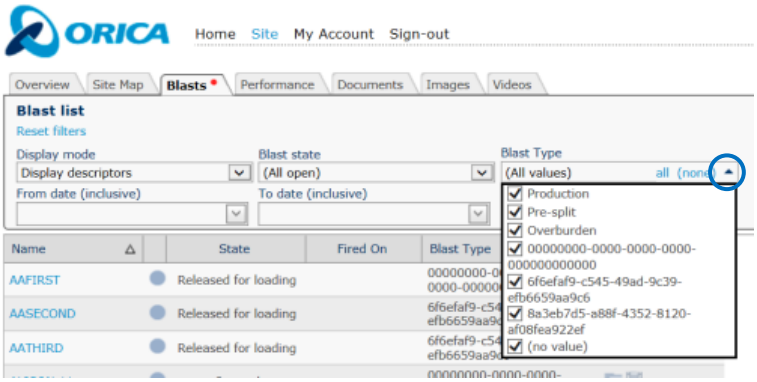


States available are:

- All open
- All blasts
- Cancelled
- Closed
- Fired
- Finished loading
- Started loading
- Designed
- Surveyed
- Created

The type of blast being displayed can be changed by:

4. Selecting the ‘drop-down’ arrow in the **Blast Type** field.

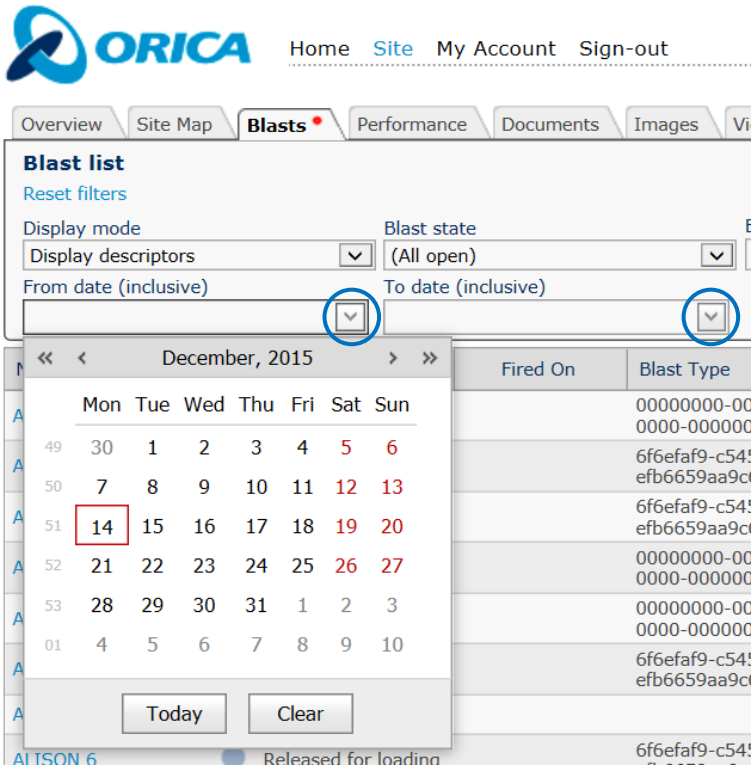


Types available are:

- Production
- Pre-split
- Overburden
- Any other types set up in the *Descriptors* field under *Site Admin*

A date range for blasts can also be chosen. This is done by:

5. Selecting the 'drop-down' arrow in the **From date** field.
   and / or
   Selecting the 'drop-down' arrow in the **To date** field.
6. Selecting the date required in the calendar view.

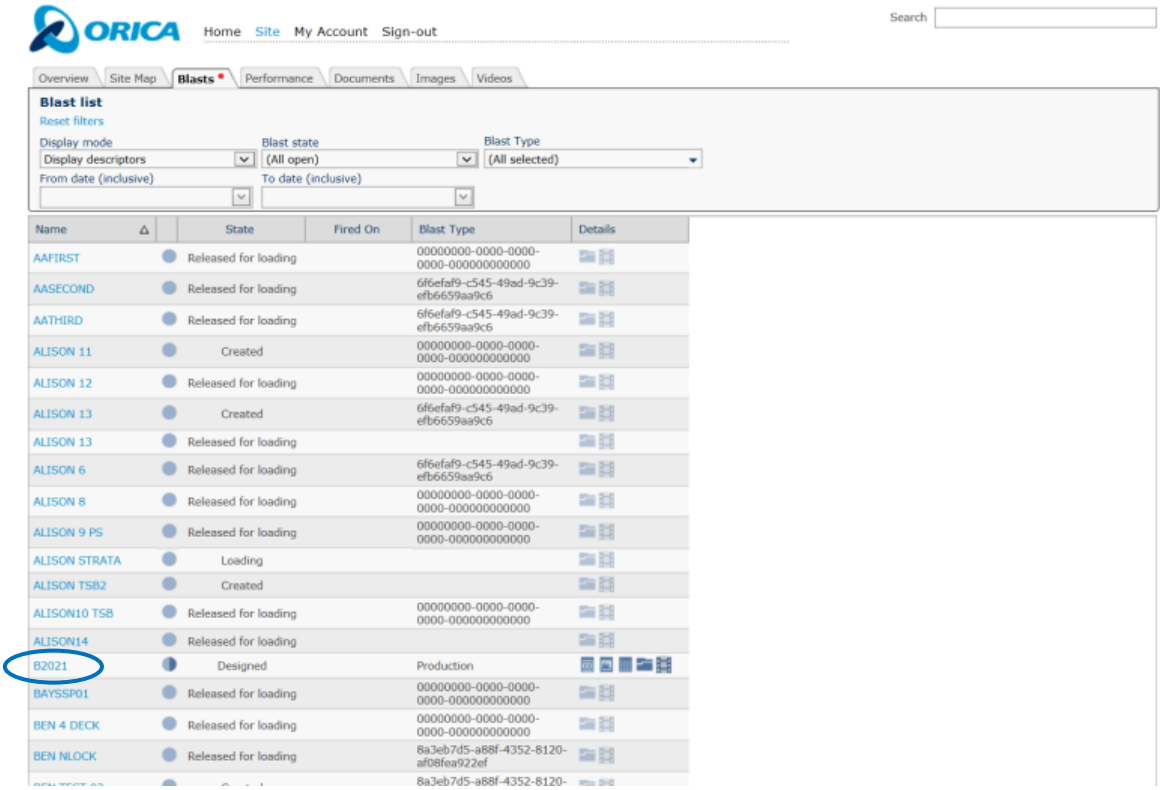


4.5.1 Individual Blast Information

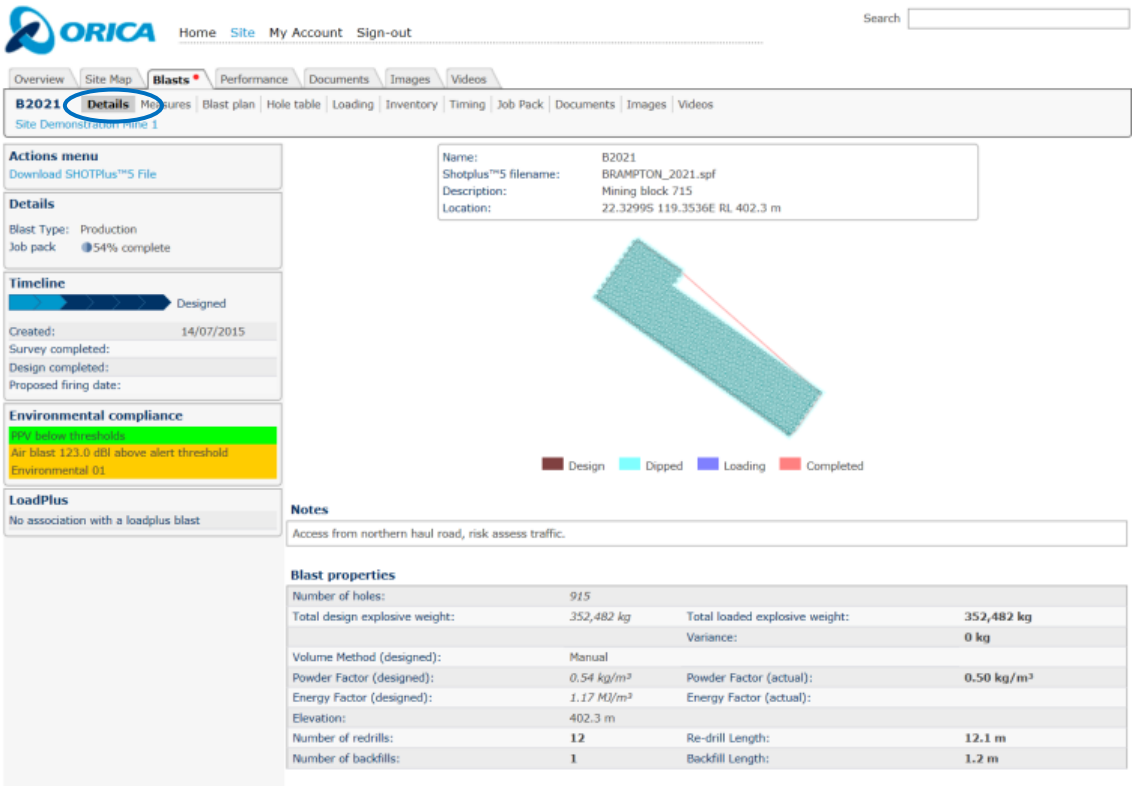
Each blast can be individually investigated.

NOTICE **Not all fields shown here are available for each blast.**

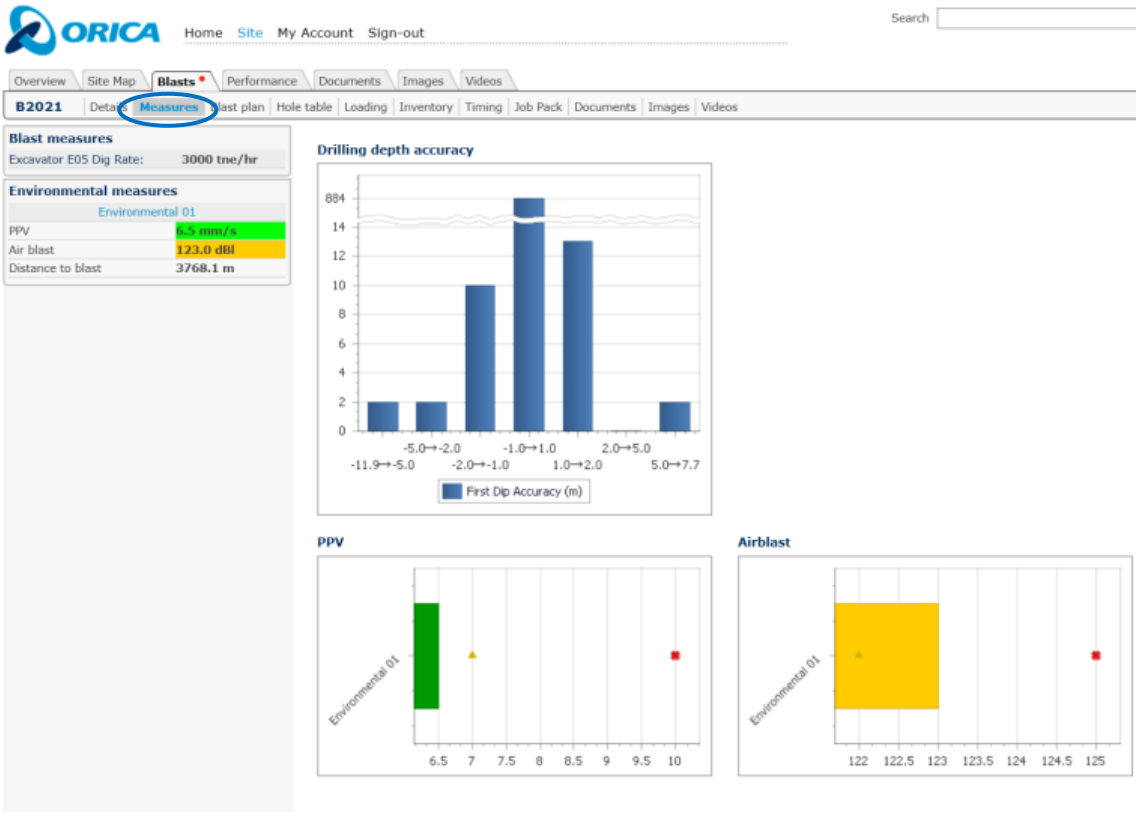
1. Select the blast.



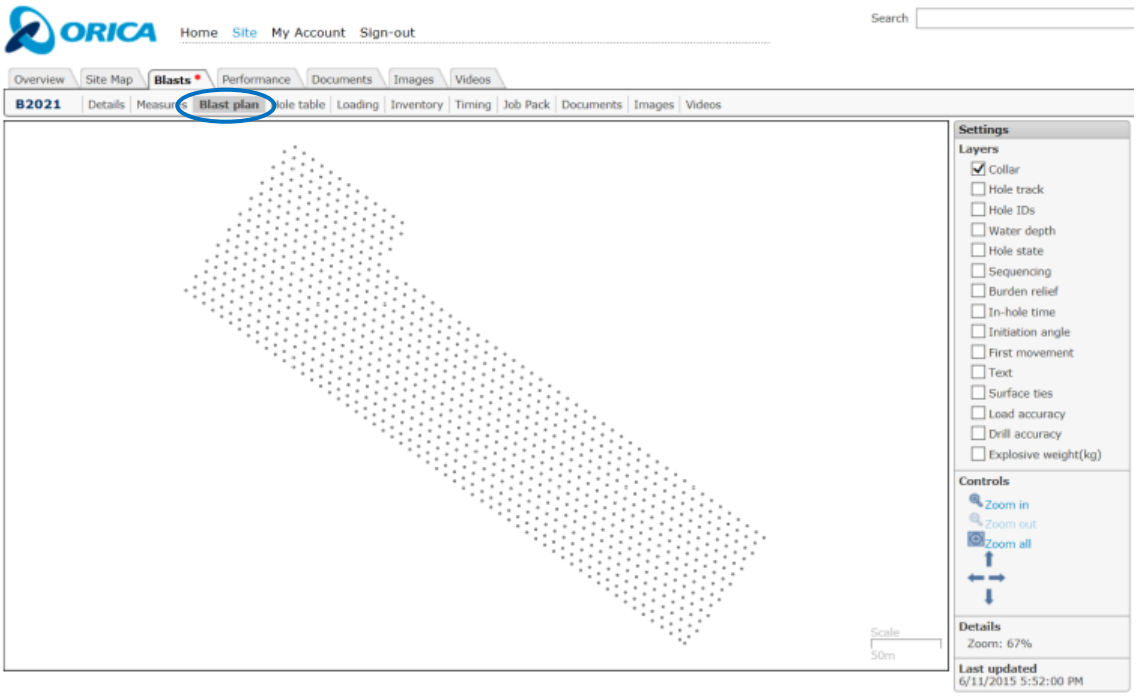
2. The blast **Details** are displayed as default.



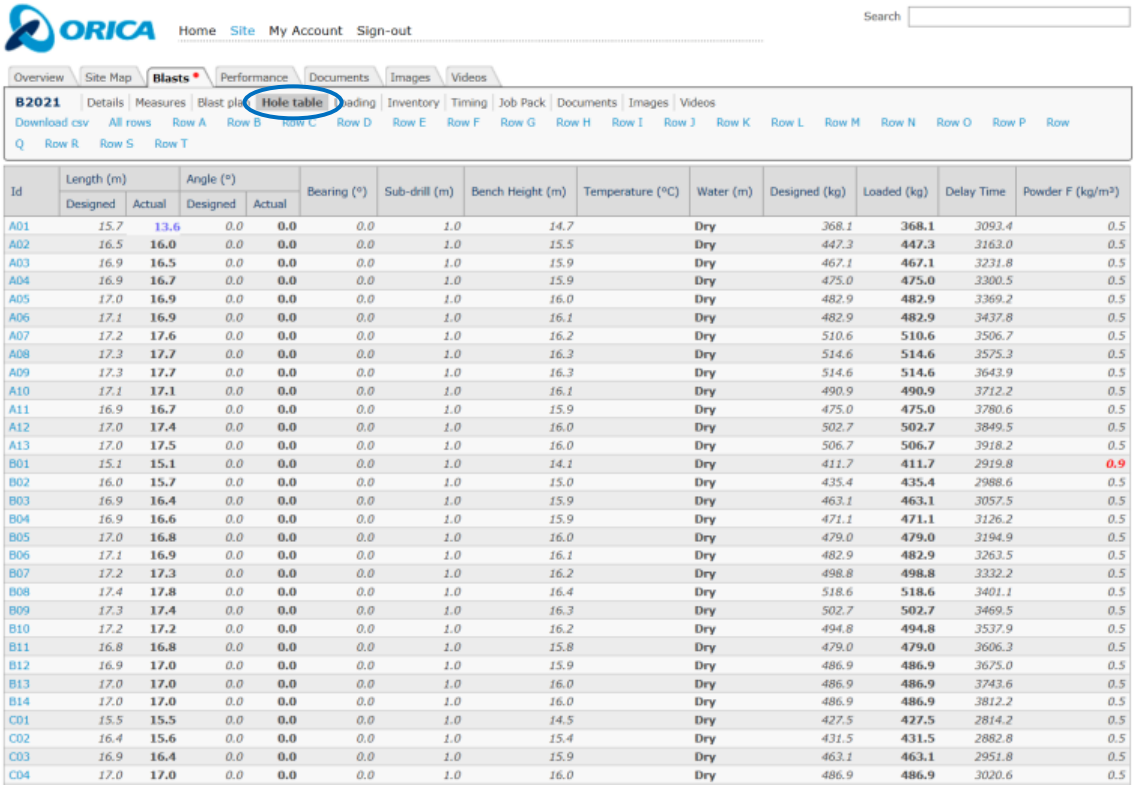
3. Select **Measures** to display all pre-defined blast and environmental measures.



4. Select **Blast plan** to display a graphical representation of the blast plan imported from SHOTPlus 5.

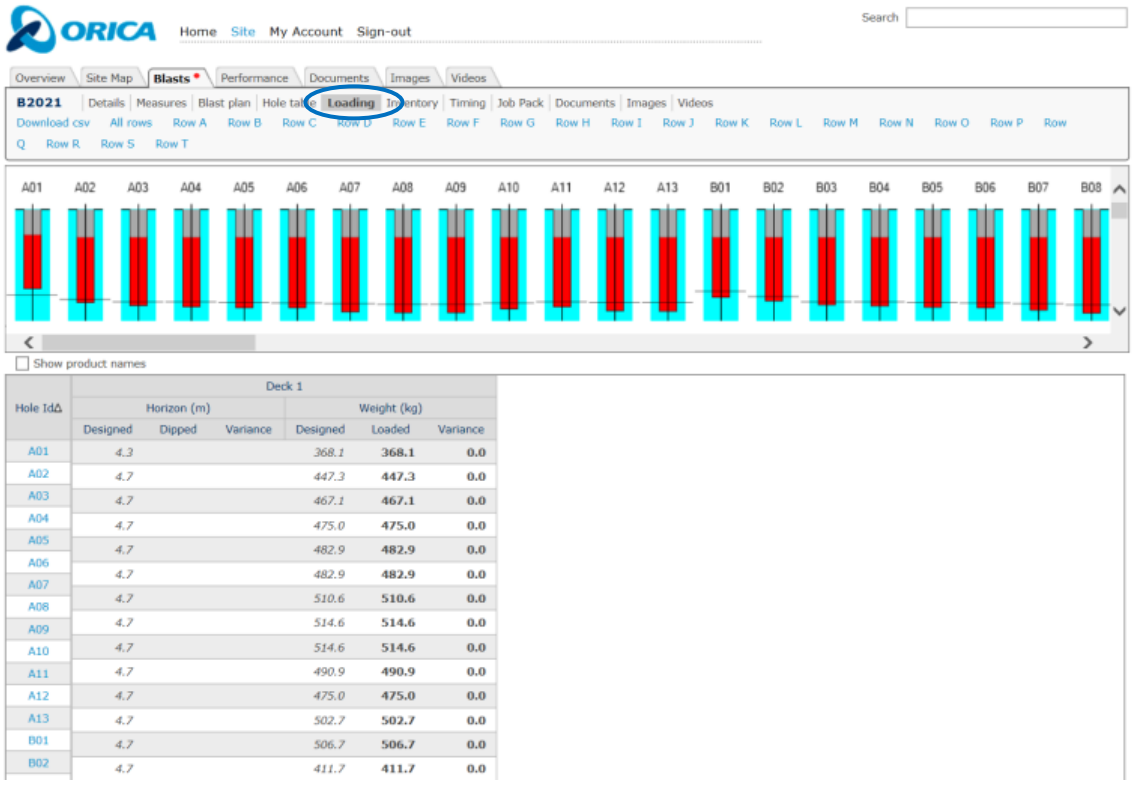


5. Select **Hole table** to display a tabulated version of all data relating to each hole, eg. design and actual depth and angle, temperature, product weight and powder factor.



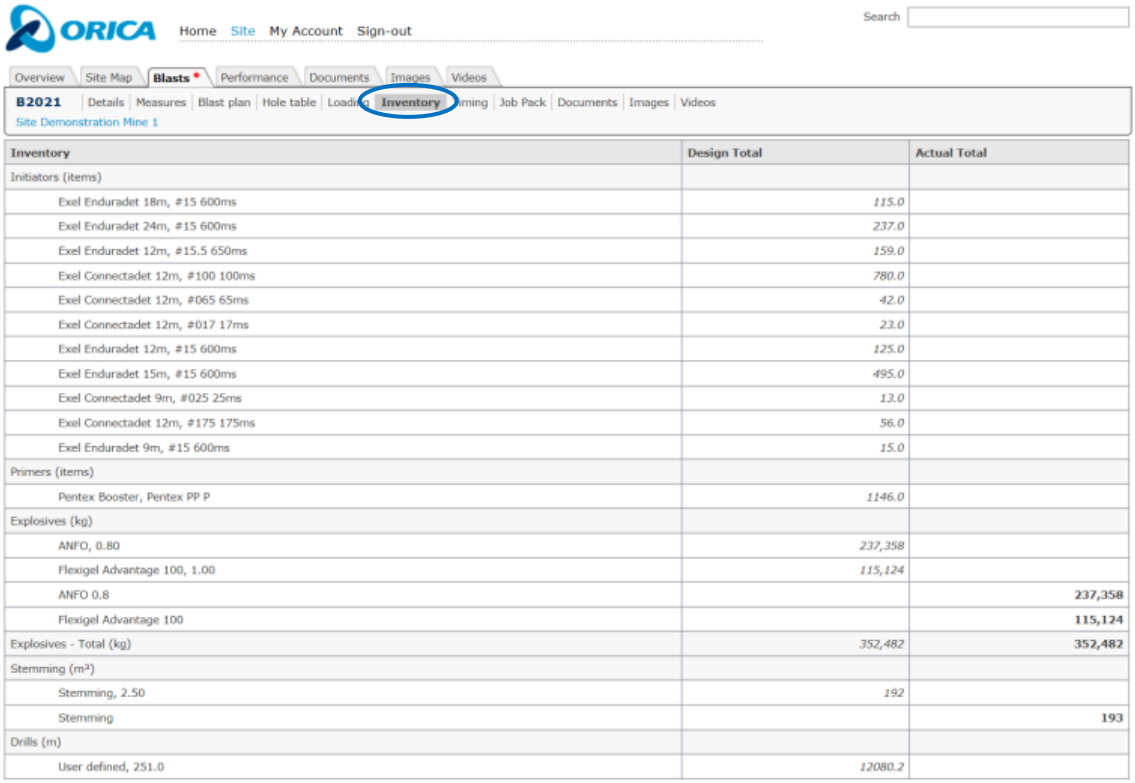
Id	Length (m) Designed	Length (m) Actual	Angle (°) Designed	Angle (°) Actual	Bearing (°)	Sub-drill (m)	Bench Height (m)	Temperature (°C)	Water (m)	Designed (kg)	Loaded (kg)	Delay Time	Powder F (kg/m³)
A01	15.7	13.6	0.0	0.0	0.0	1.0	14.7		Dry	368.1	368.1	3093.4	0.5
A02	16.5	16.0	0.0	0.0	0.0	1.0	15.5		Dry	447.3	447.3	3163.0	0.5
A03	16.9	16.5	0.0	0.0	0.0	1.0	15.9		Dry	467.1	467.1	3231.8	0.5
A04	16.9	16.7	0.0	0.0	0.0	1.0	15.9		Dry	475.0	475.0	3300.5	0.5
A05	17.0	16.9	0.0	0.0	0.0	1.0	16.0		Dry	482.9	482.9	3369.2	0.5
A06	17.1	16.9	0.0	0.0	0.0	1.0	16.1		Dry	482.9	482.9	3437.8	0.5
A07	17.2	17.6	0.0	0.0	0.0	1.0	16.2		Dry	510.6	510.6	3506.7	0.5
A08	17.3	17.7	0.0	0.0	0.0	1.0	16.3		Dry	514.6	514.6	3575.3	0.5
A09	17.3	17.7	0.0	0.0	0.0	1.0	16.3		Dry	514.6	514.6	3643.9	0.5
A10	17.1	17.1	0.0	0.0	0.0	1.0	16.1		Dry	490.9	490.9	3712.2	0.5
A11	16.9	16.7	0.0	0.0	0.0	1.0	15.9		Dry	475.0	475.0	3780.6	0.5
A12	17.0	17.4	0.0	0.0	0.0	1.0	16.0		Dry	502.7	502.7	3849.5	0.5
A13	17.0	17.5	0.0	0.0	0.0	1.0	16.0		Dry	506.7	506.7	3918.2	0.5
B01	15.1	15.1	0.0	0.0	0.0	1.0	14.1		Dry	411.7	411.7	2919.8	0.9
B02	16.0	15.7	0.0	0.0	0.0	1.0	15.0		Dry	435.4	435.4	2988.6	0.5
B03	16.9	16.4	0.0	0.0	0.0	1.0	15.9		Dry	463.1	463.1	3057.5	0.5
B04	16.9	16.6	0.0	0.0	0.0	1.0	15.9		Dry	471.1	471.1	3126.2	0.5
B05	17.0	16.8	0.0	0.0	0.0	1.0	16.0		Dry	479.0	479.0	3194.9	0.5
B06	17.1	16.9	0.0	0.0	0.0	1.0	16.1		Dry	482.9	482.9	3263.5	0.5
B07	17.2	17.3	0.0	0.0	0.0	1.0	16.2		Dry	498.8	498.8	3332.2	0.5
B08	17.4	17.8	0.0	0.0	0.0	1.0	16.4		Dry	518.6	518.6	3401.1	0.5
B09	17.3	17.4	0.0	0.0	0.0	1.0	16.3		Dry	502.7	502.7	3469.5	0.5
B10	17.2	17.2	0.0	0.0	0.0	1.0	16.2		Dry	494.8	494.8	3537.9	0.5
B11	16.8	16.8	0.0	0.0	0.0	1.0	15.8		Dry	479.0	479.0	3606.3	0.5
B12	16.9	17.0	0.0	0.0	0.0	1.0	15.9		Dry	486.9	486.9	3675.0	0.5
B13	17.0	17.0	0.0	0.0	0.0	1.0	16.0		Dry	486.9	486.9	3743.6	0.5
B14	17.0	17.0	0.0	0.0	0.0	1.0	16.0		Dry	486.9	486.9	3812.2	0.5
C01	15.5	15.5	0.0	0.0	0.0	1.0	14.5		Dry	427.5	427.5	2814.2	0.5
C02	16.4	15.6	0.0	0.0	0.0	1.0	15.4		Dry	431.5	431.5	2882.8	0.5
C03	16.9	16.4	0.0	0.0	0.0	1.0	15.9		Dry	463.1	463.1	2951.8	0.5
C04	17.0	17.0	0.0	0.0	0.0	1.0	16.0		Dry	486.9	486.9	3020.6	0.5

6. Select **Loading** to display both a graphical and tabulated version of the as loaded data.



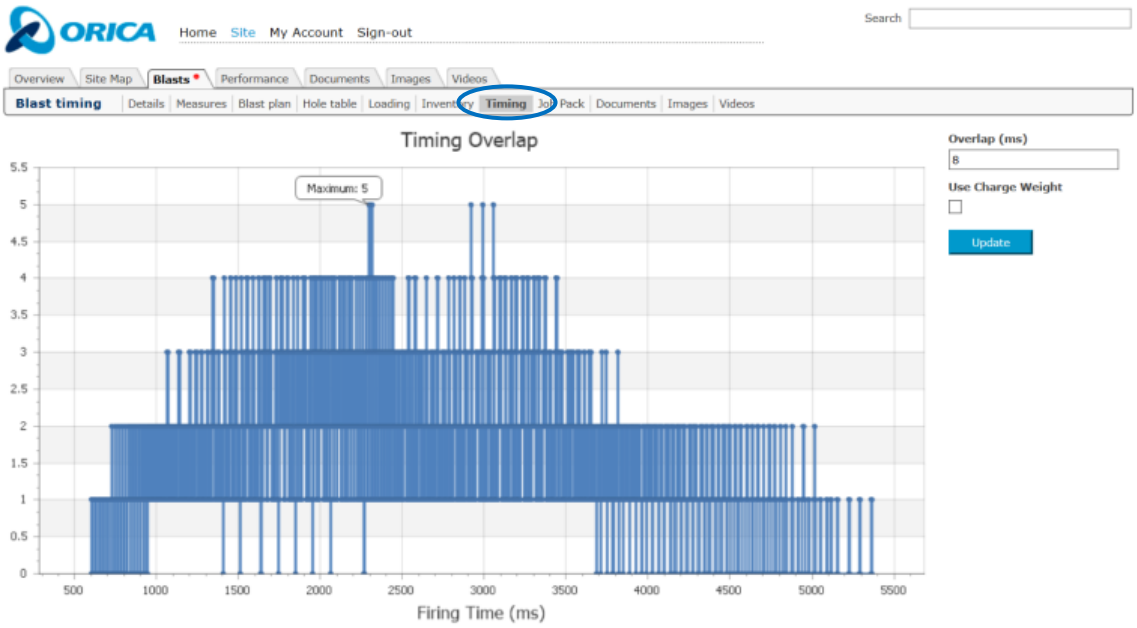
Hole Id	Deck 1					
	Horizon (m)			Weight (kg)		
	Designed	Dipped	Variance	Designed	Loaded	Variance
A01	4.3			368.1	368.1	0.0
A02	4.7			447.3	447.3	0.0
A03	4.7			467.1	467.1	0.0
A04	4.7			475.0	475.0	0.0
A05	4.7			482.9	482.9	0.0
A06	4.7			482.9	482.9	0.0
A07	4.7			510.6	510.6	0.0
A08	4.7			514.6	514.6	0.0
A09	4.7			514.6	514.6	0.0
A10	4.7			490.9	490.9	0.0
A11	4.7			475.0	475.0	0.0
A12	4.7			502.7	502.7	0.0
A13	4.7			506.7	506.7	0.0
B01	4.7			411.7	411.7	0.0
B02	4.7					

7. Select **Inventory** to display the product list used in the design for that blast.



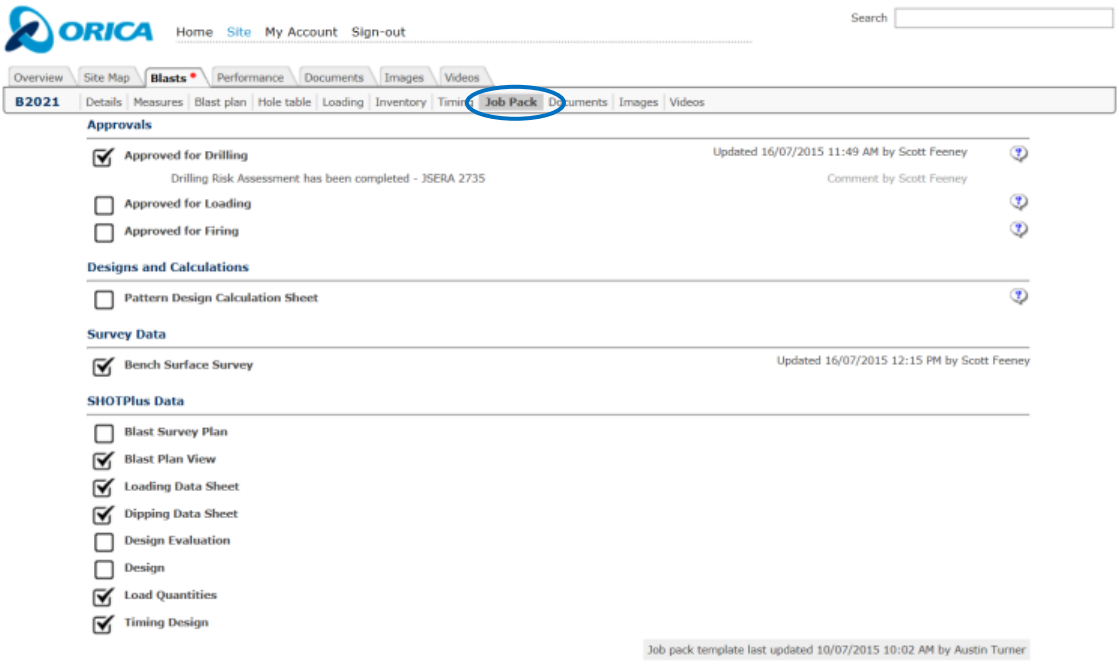
Inventory	Design Total	Actual Total
Initiators (items)		
Exel Enduradet 18m, #15 600ms	115.0	
Exel Enduradet 24m, #15 600ms	237.0	
Exel Enduradet 12m, #15.5 650ms	159.0	
Exel Connectadet 12m, #100 100ms	780.0	
Exel Connectadet 12m, #065 65ms	42.0	
Exel Connectadet 12m, #017 17ms	23.0	
Exel Enduradet 12m, #15 600ms	125.0	
Exel Enduradet 15m, #15 600ms	495.0	
Exel Connectadet 9m, #025 25ms	13.0	
Exel Connectadet 12m, #175 175ms	56.0	
Exel Enduradet 9m, #15 600ms	15.0	
Primers (items)		
Pentex Booster, Pentex PP P	1146.0	
Explosives (kg)		
ANFO, 0.80	237,358	
Flexigel Advantage 100, 1.00	115,124	
ANFO 0.8		237,358
Flexigel Advantage 100		115,124
Explosives - Total (kg)	352,482	352,482
Stemming (m³)		
Stemming, 2.50	192	
Stemming		193
Drills (m)		
User defined, 251.0	12080.2	

8. Select **Timing** to display the firing times (in milliseconds) for the blast.

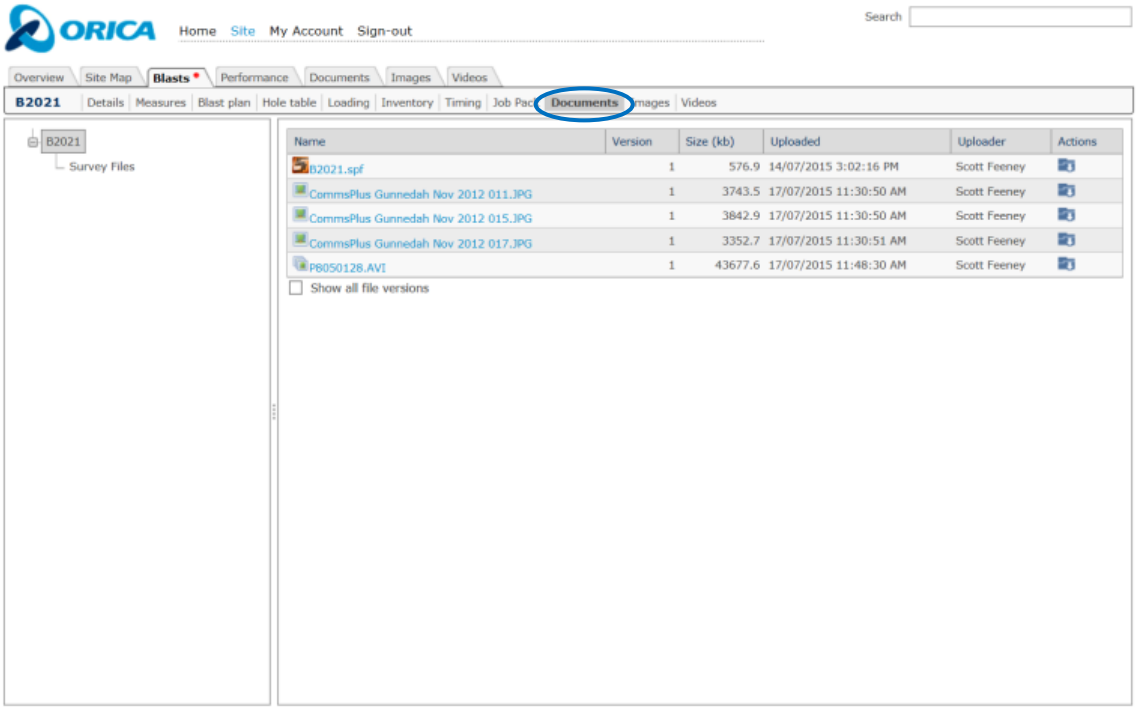


9. Select **Job Pack** to display the job pack details related to that blast:

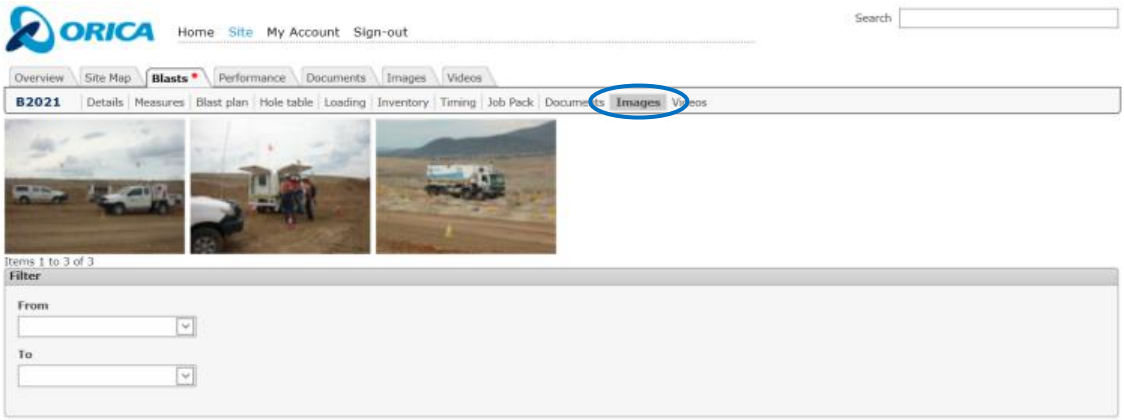
- Approvals
- Designs and Calculations
- Survey Data
- SHOTPlus Data



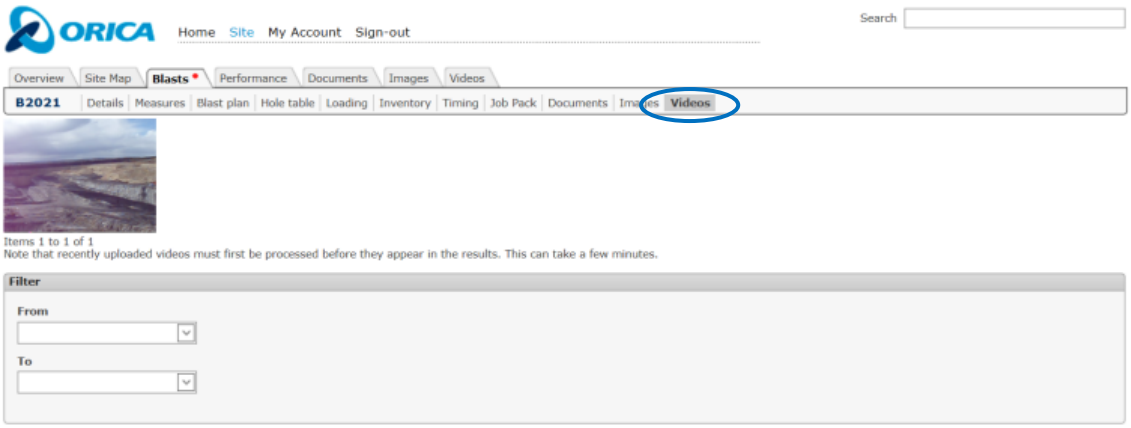
10. Select **Documents** to display the documents related to that blast.



11. Select **Images** to display the images related to that blast.



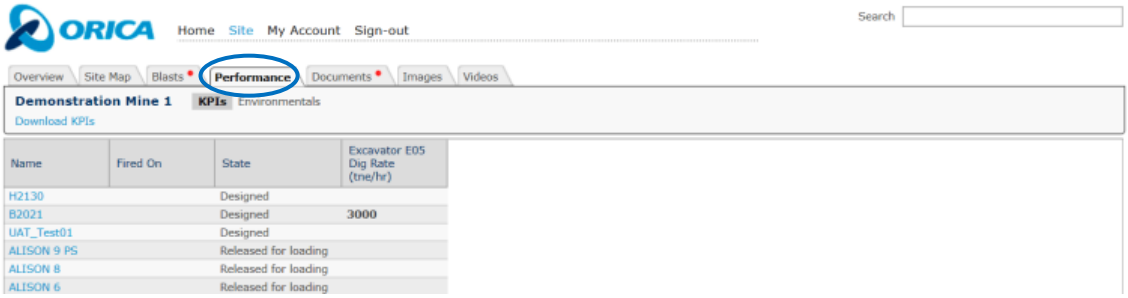
12. Select **Videos** to display the videos related to that blast.



4.6 VIEWING THE SITE PERFORMANCE

Site Performance allows you to view site Key Performance Indicators (KPIs) and Environmental performance.

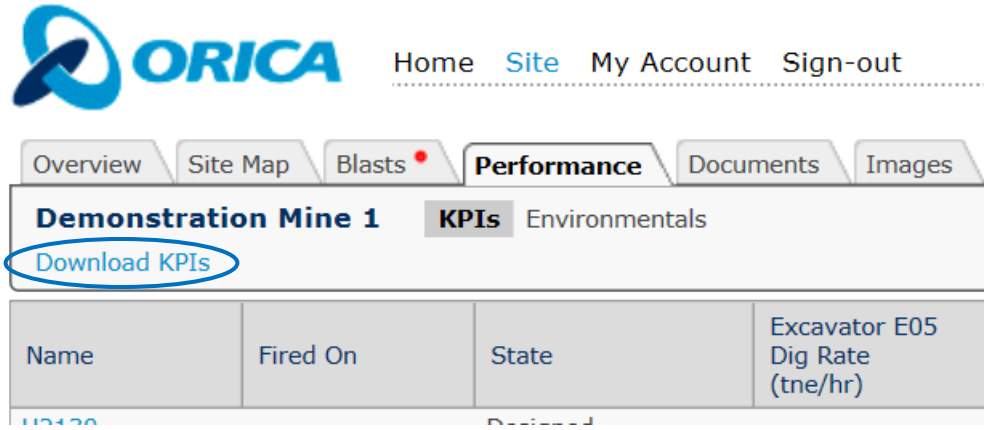
1. Select the **Performance** tab.



KPIs are displayed as the default.

To download the KPIs:

2. Select **Download KPIs**.



3. Select **Save**.

NOTICE

The above screenshot is from Internet Explorer 10.

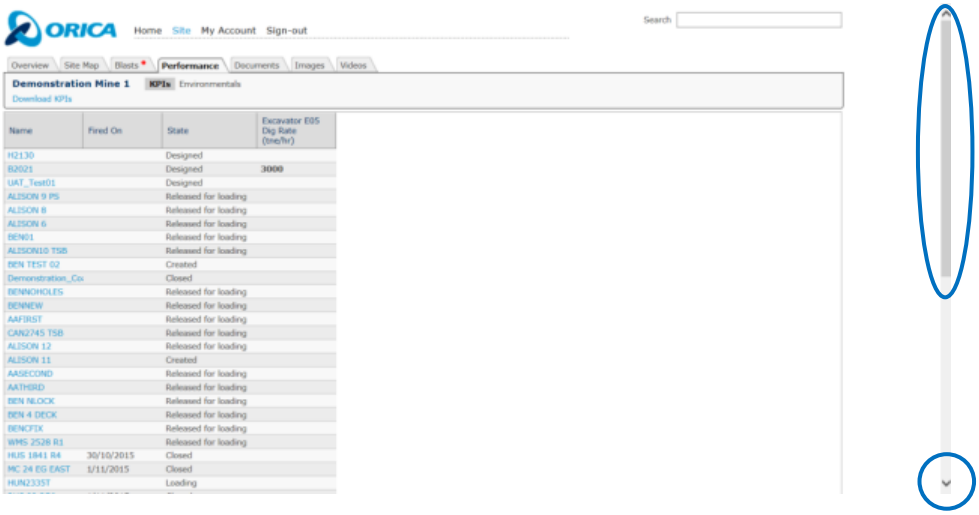
File opening and saving may differ for other browsers.

The file can be opened now, or the dialog box can be closed:

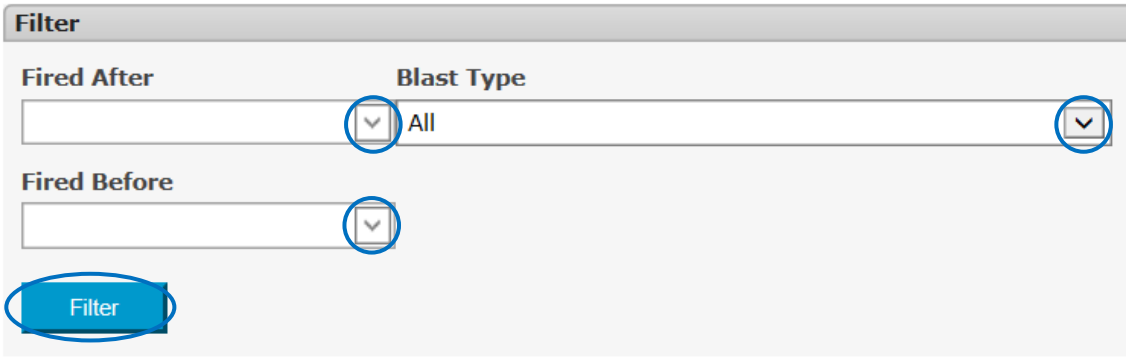
4. Select **X**.

The KPI data can be filtered for a selected date window.

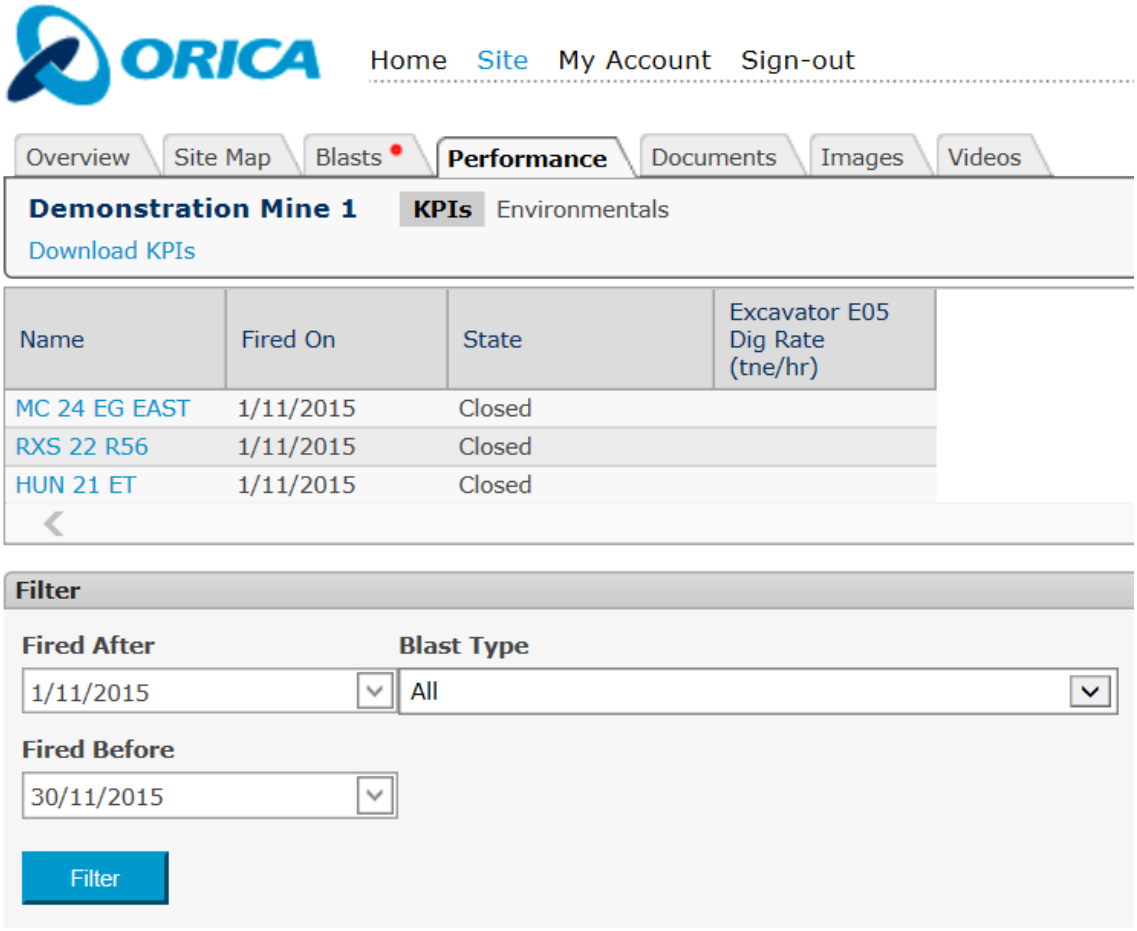
5. Scroll down to the bottom of the **KPIs** page by holding the scroll bar or selecting the arrow.



6. Select the **Fired After** date, **Fired Before** date and **Blast Type** using the drop down arrows.
7. Select **Filter**.

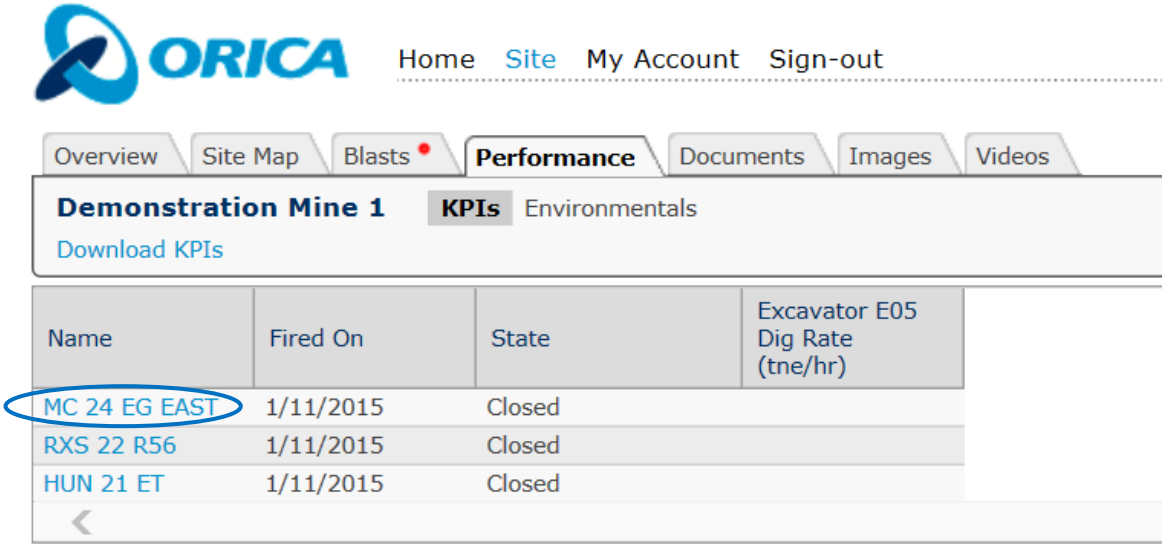


8. The data for the selected window (only) will be displayed.

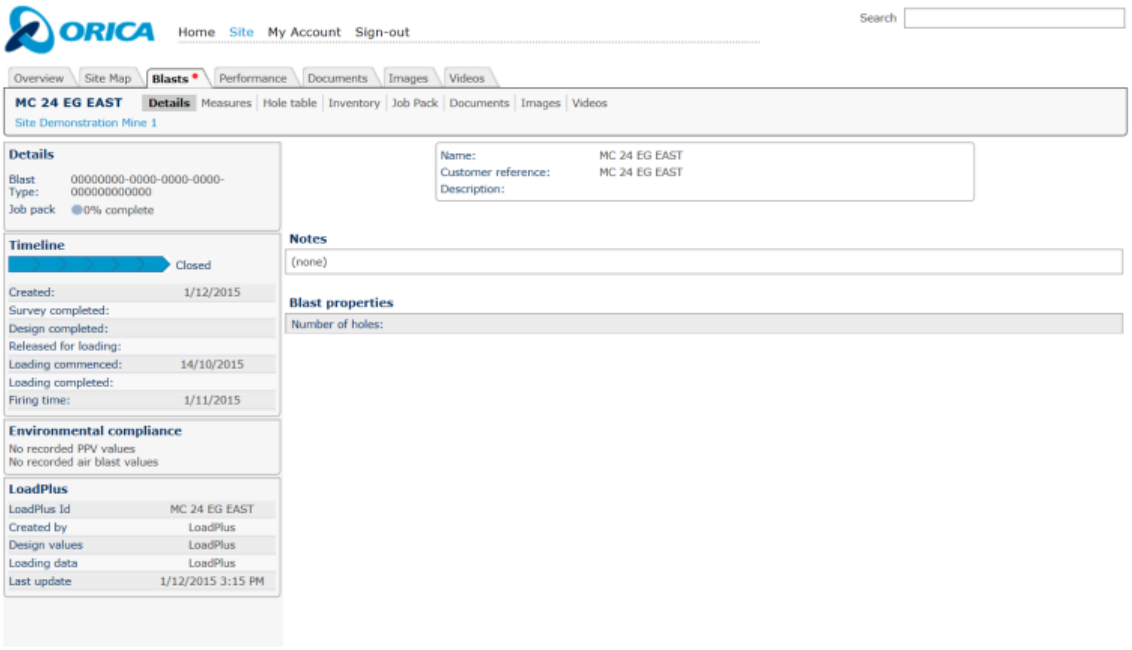


Individual blasts can be viewed.

9. Select the blast.



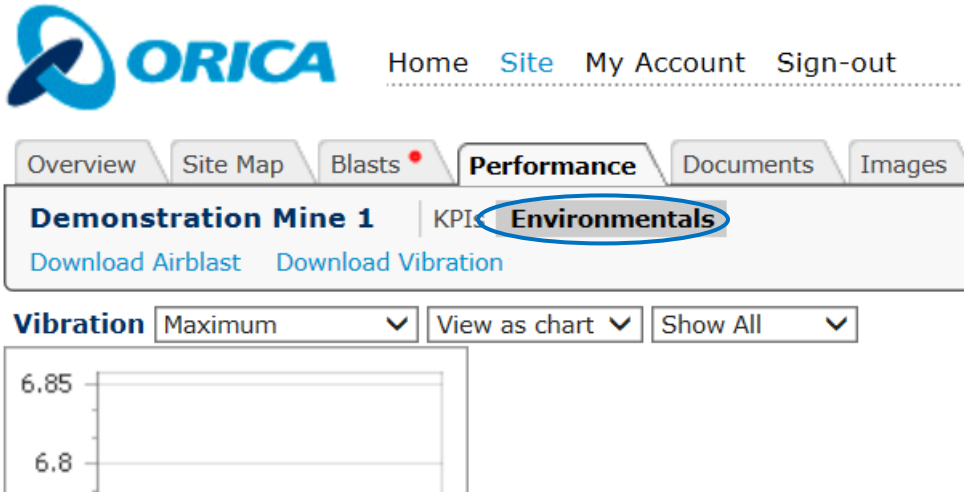
10. Details relating to the blast are displayed.



11. Each field can be viewed as described in Section 4.5.1 Individual Blast Information.

The Environmental performance of the site can be viewed.

1. Select **Environmentals**.



Under the **Vibration** heading, the Viewer can select between:

2. The **Maximum** vibration recorded or a particular monitoring point.

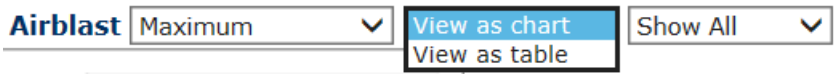
3. The display type, **chart** or **table**.

4. The timeframe to be displayed: **Show All**, **Last 90 days** or **Last 30 days**.

Under the **Airblast** heading, the Viewer can select between:

5. The **Maximum** airblast recorded or a particular monitoring point.

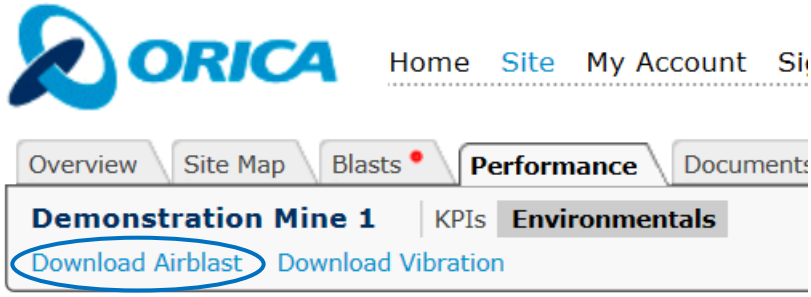
6. The display type, **chart** or **table**.



7. The timeframe to be displayed: **Show All**, **Last 90 days** or **Last 30 days**.

To download the **Airblast** data:

8. Select **Download Airblast**.



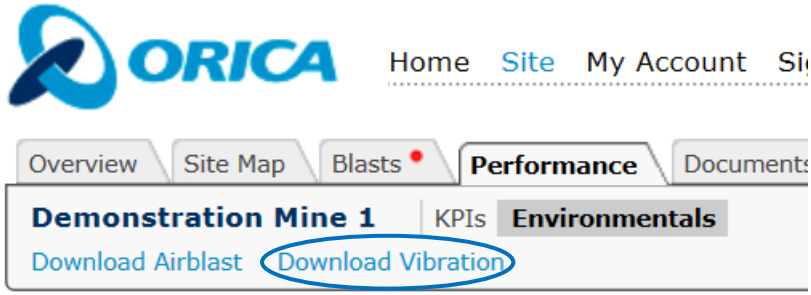
9. Select **Save**.

Close the dialog box:

10. Select **X**.

To download the **Vibration** data:

11. Select **Download Vibration**.



12. Select **Save**.

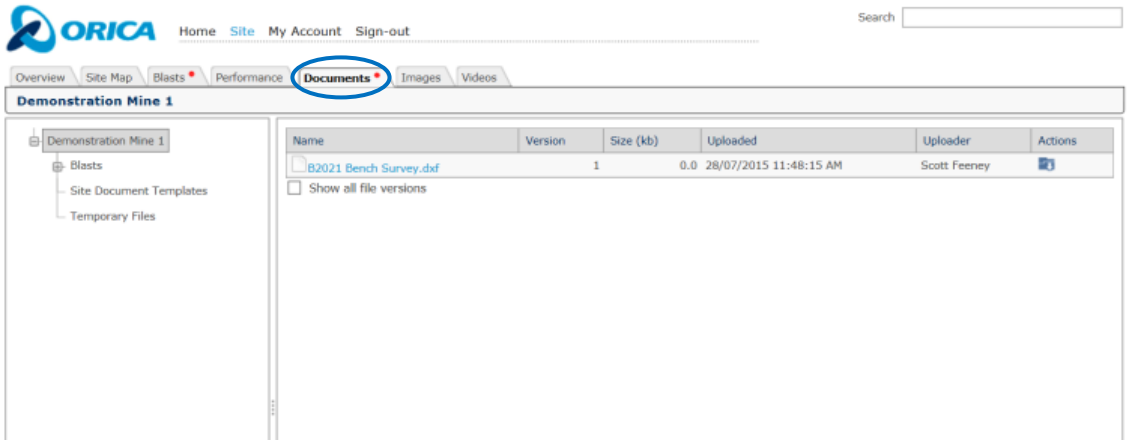
Close the dialog box:

13. Select **X**.

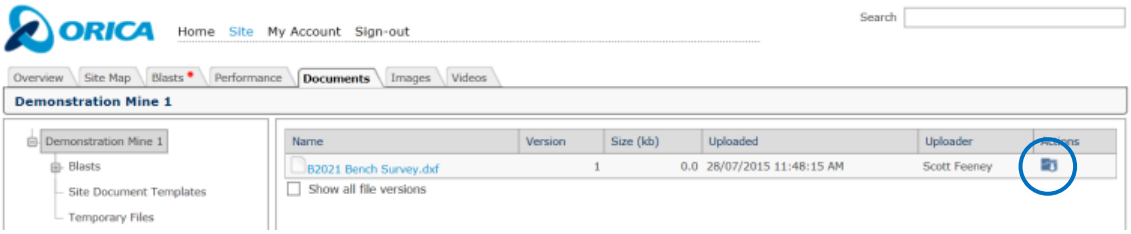
4.7 VIEWING THE SITE DOCUMENTS

All **Documents** associated with the site, including previous versions of files, can be viewed and/or downloaded from here.

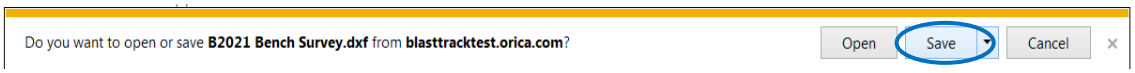
1. Select the **Documents** tab.



2. Select the **Download** icon next to the required file.



3. Select **Save**.

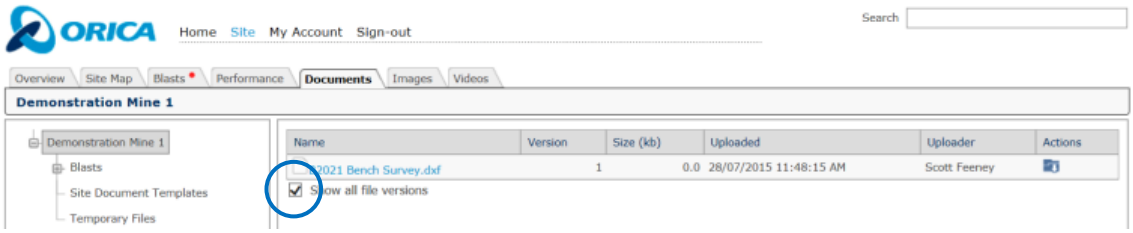


4. Close the dialog box.

Previous versions of the document/s can be viewed also.

5. Place a tick in the **Show all file versions** box.

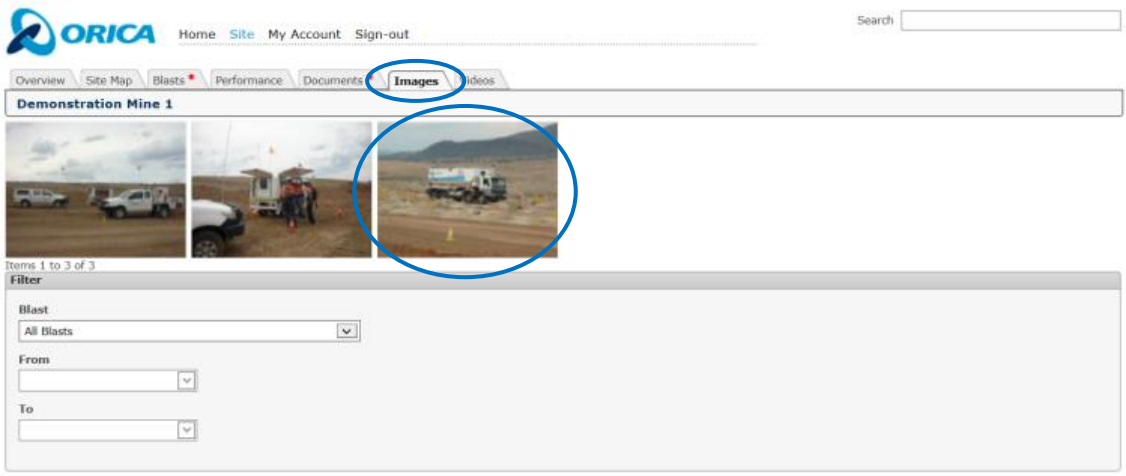
   In the screenshot example there are no previous versions, so only the current version is being displayed.



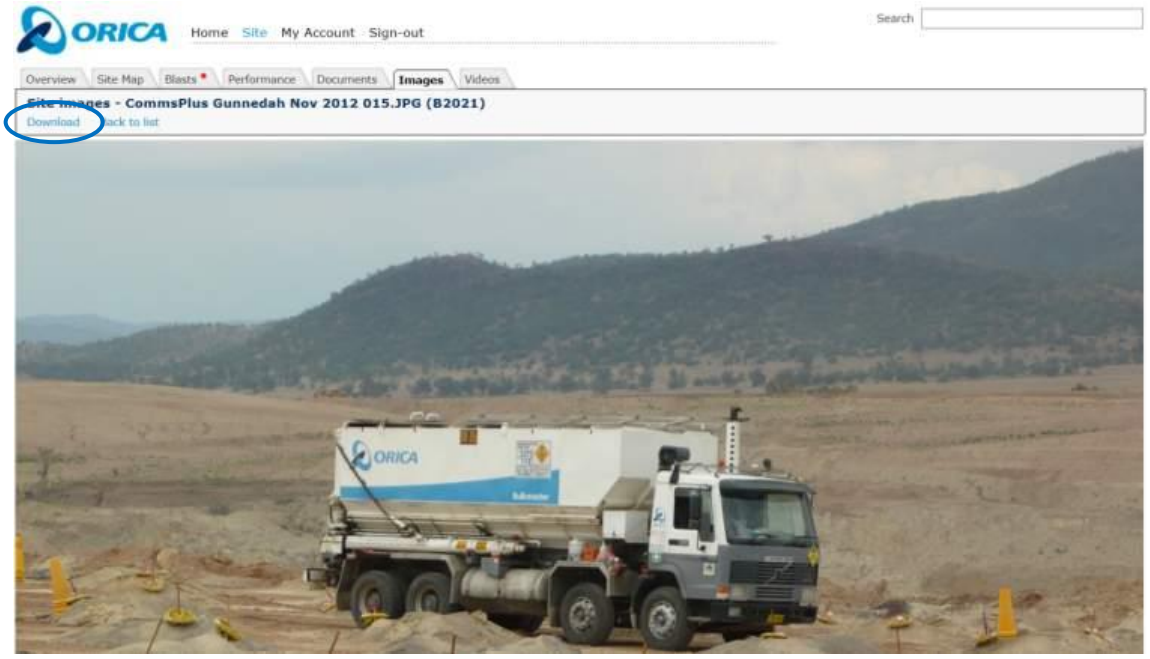
4.8 VIEWING THE SITE IMAGES

All **Images** associated with the site can be viewed and/or downloaded from here.

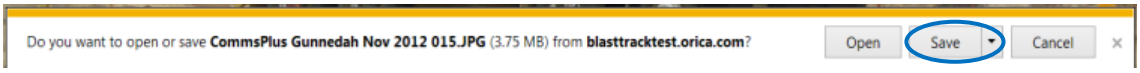
1. Select the **Images** tab.
2. Select the image to view by 'clicking' it.



3. To download the image, select **Download**.

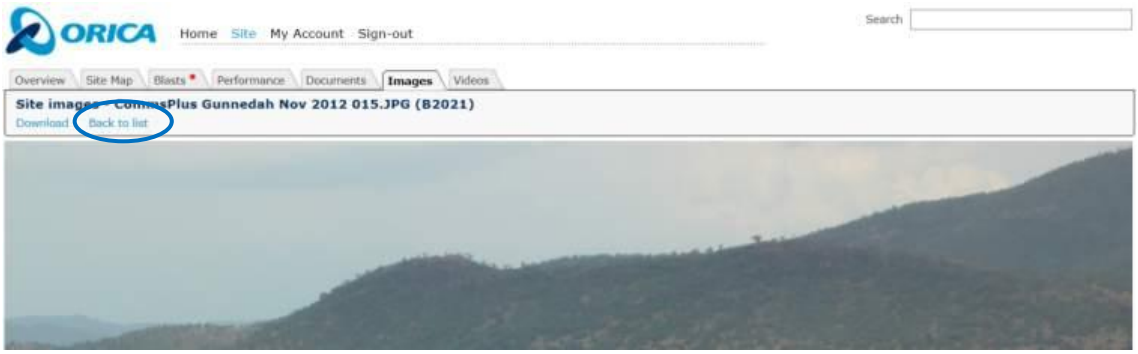


4. Select **Save**.

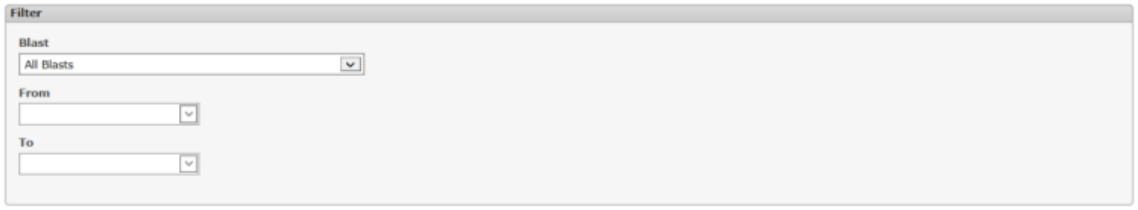


5. Close the dialog box.

6. To return to the **Images** starting page, select **Back to list**.



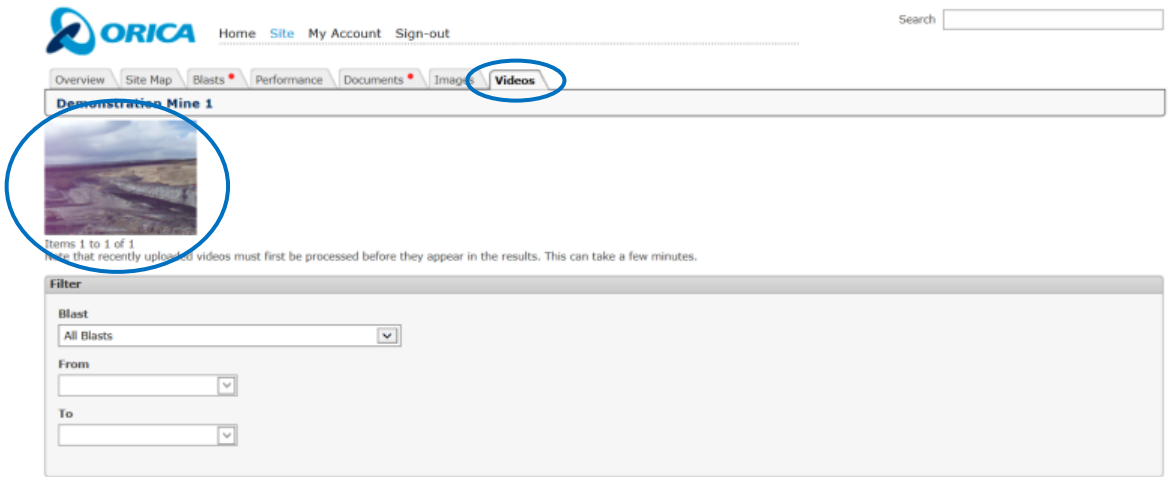
7. A **Filter** is available for the *Viewer* to select the **Blast**, date **From** and date **To** fields.



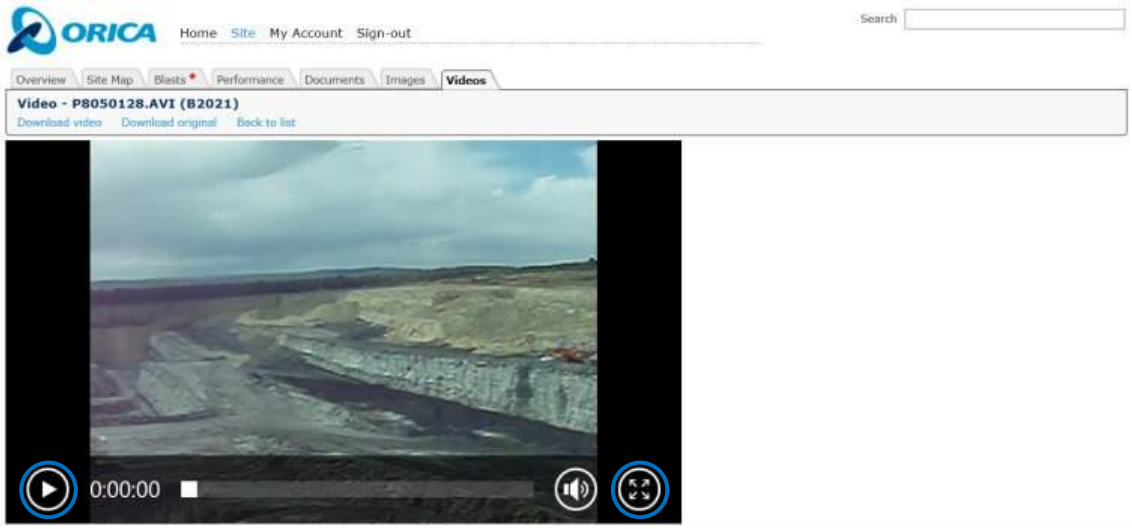
4.9 VIEWING THE SITE VIDEOS

All **Videos** associated with the site can be viewed and/or downloaded from here.

1. Select the **Videos** tab.
2. Select the video to view by 'clicking' it.



3. To view the video, select the ► (play) icon.
4. To make the video full screen, select the maximise icon.

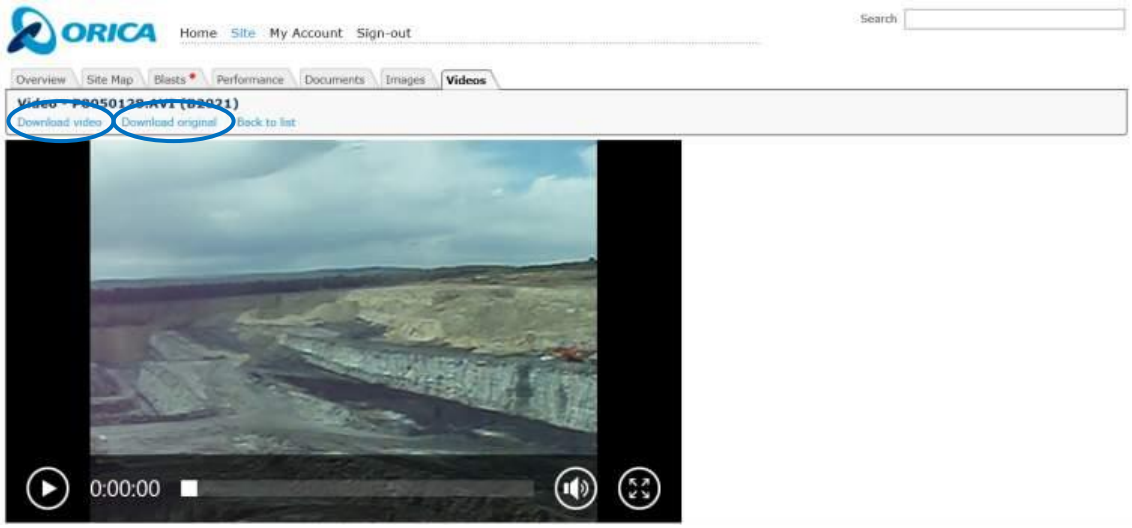


To view the video online (outside the BlastIQ system):

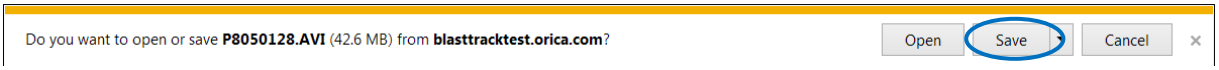
5. Select **Download video**.

To download the video,

6. Select **Download original**.

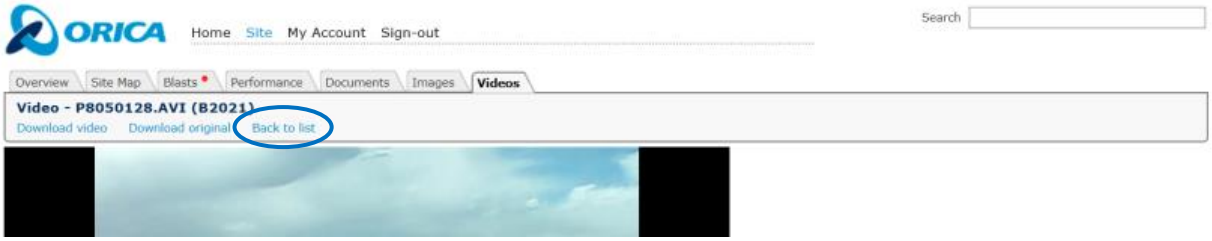


7. Select **Save**.

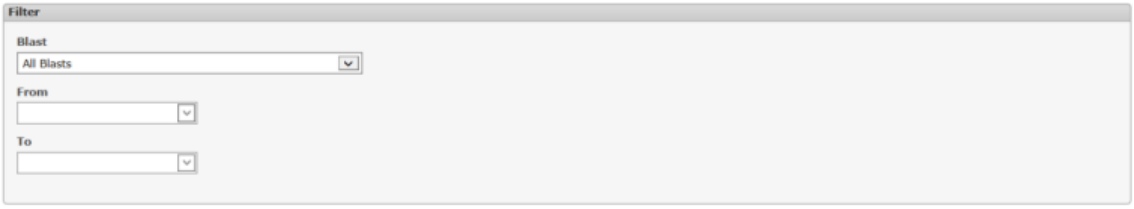


8. Close the dialog box.

9. To return to the **Videos** starting page, select **Back to list**.



10. A **Filter** is available for the *Viewer* to select the **Blast**, date **From** and date **To** fields.



5 USING BLASTIQ AS A CONTRIBUTOR

Section Revision:	**0**	**Revision Date:**	**November 2015**

5.1 OVERVIEW

Contributors may view all blasting information restricted by the confidentiality provisions and add new documents to a site.

Contributors are able to perform all tasks from:

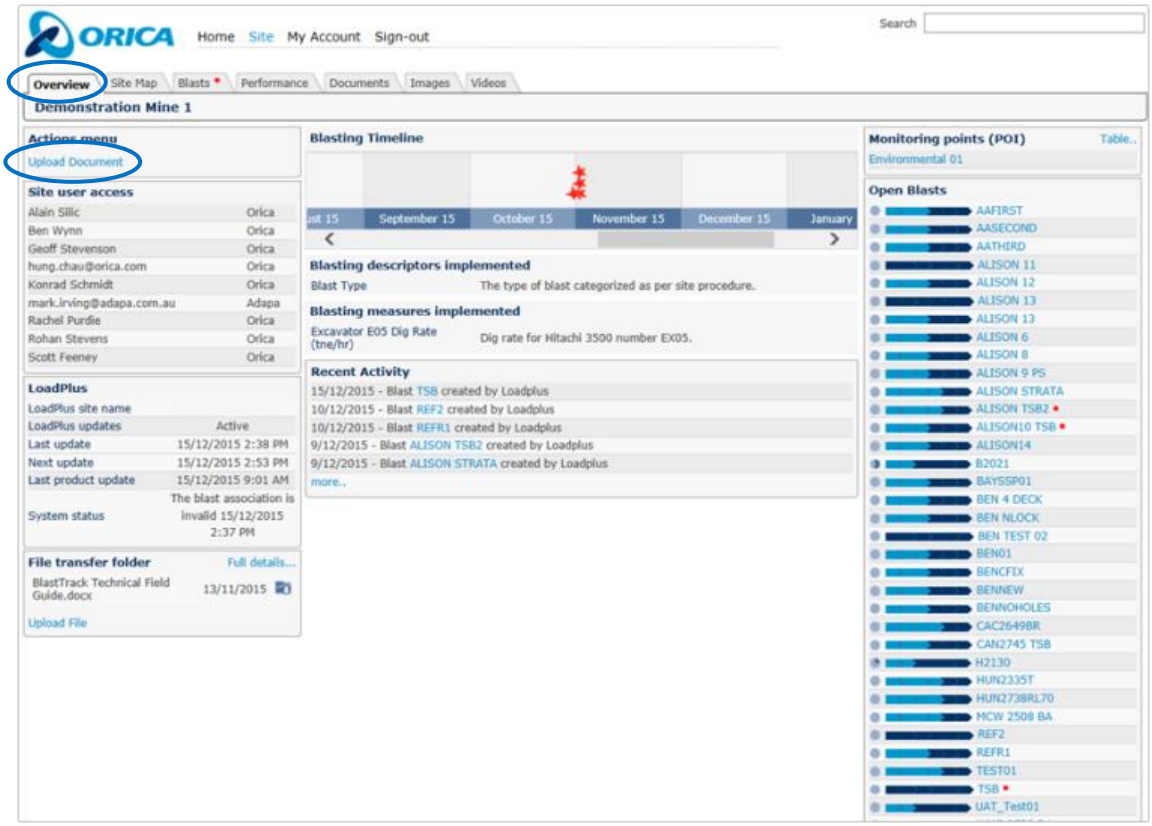
- Section 4 USING BLASTIQ AS A VIEWER

5.2 UPLOADING DOCUMENTS AND FILES

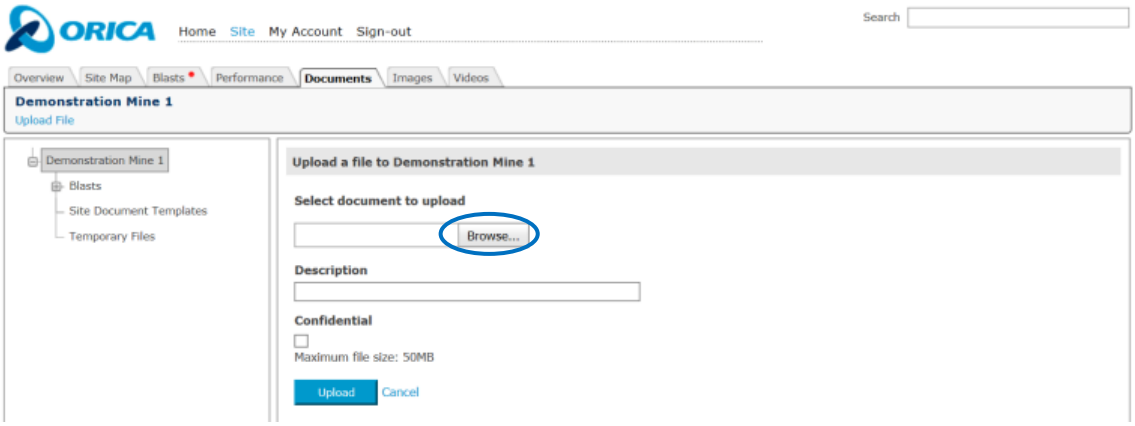
The Contributor is able to upload documents and files.

5.2.1 Uploading a Document from the Overview Tab

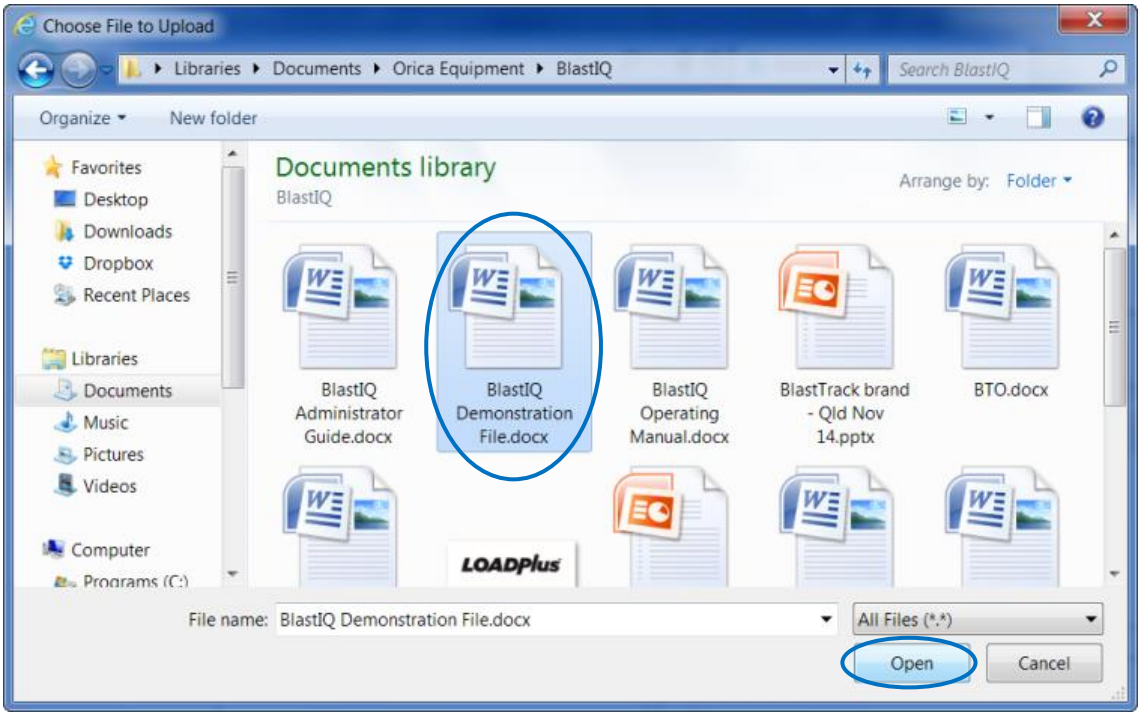
1. Select the **Overview** tab.
2. Select **Upload Document**.



3. The system goes to the **Documents** area for the site.
4. Select **Browse…**

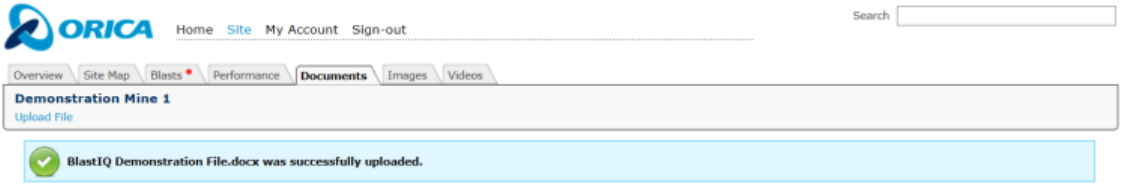


5. Locate the document to upload.
6. Select the file (it will become highlighted).
7. Select **Open**.



8. If required, enter a document description (optional).
9. If required, make the document **Confidential** by selecting the box (optional).
10. Select **Upload**.

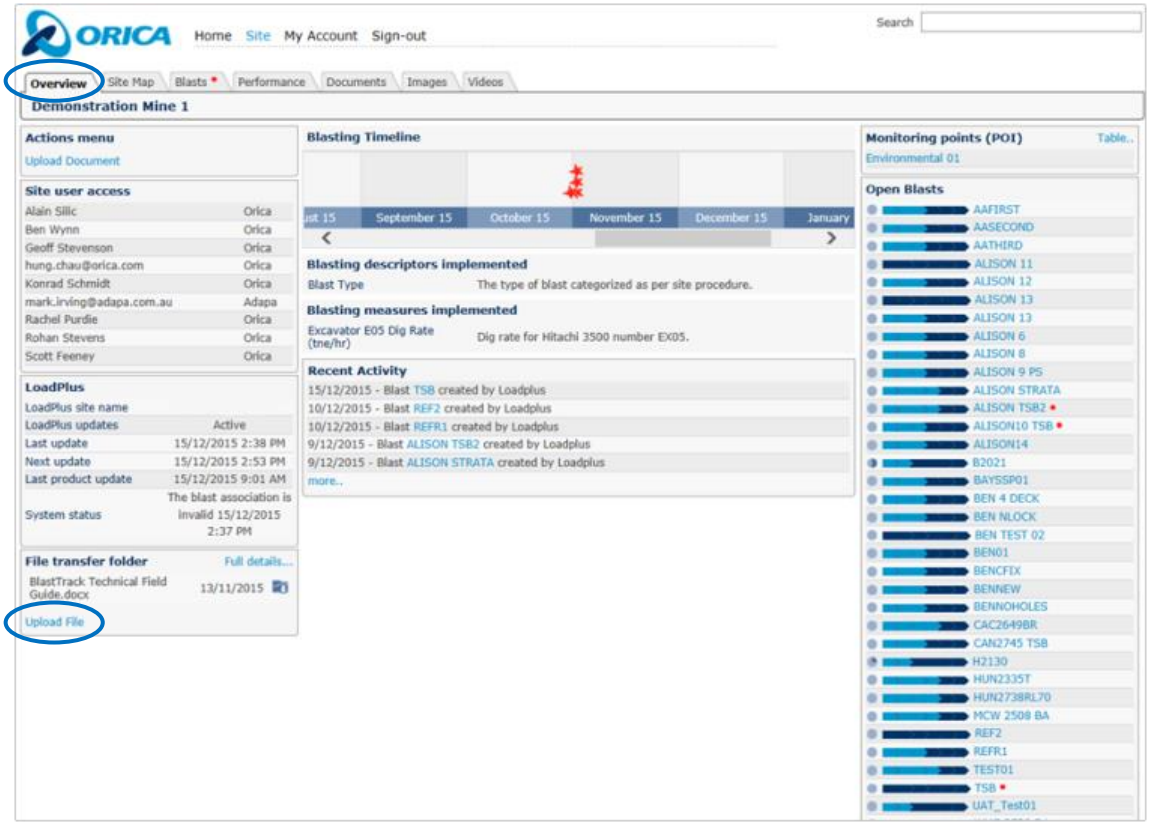
11. Successfully Uploaded message is displayed.



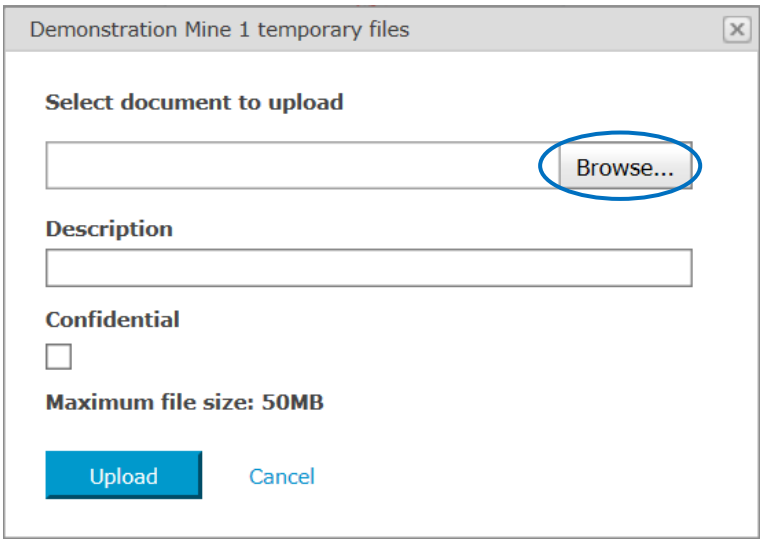
5.2.2 Uploading a File from the Overview Tab

Upload File is used for larger files. They are only temporarily stored. This allows users to transfer large files between themselves, to save outside the system.

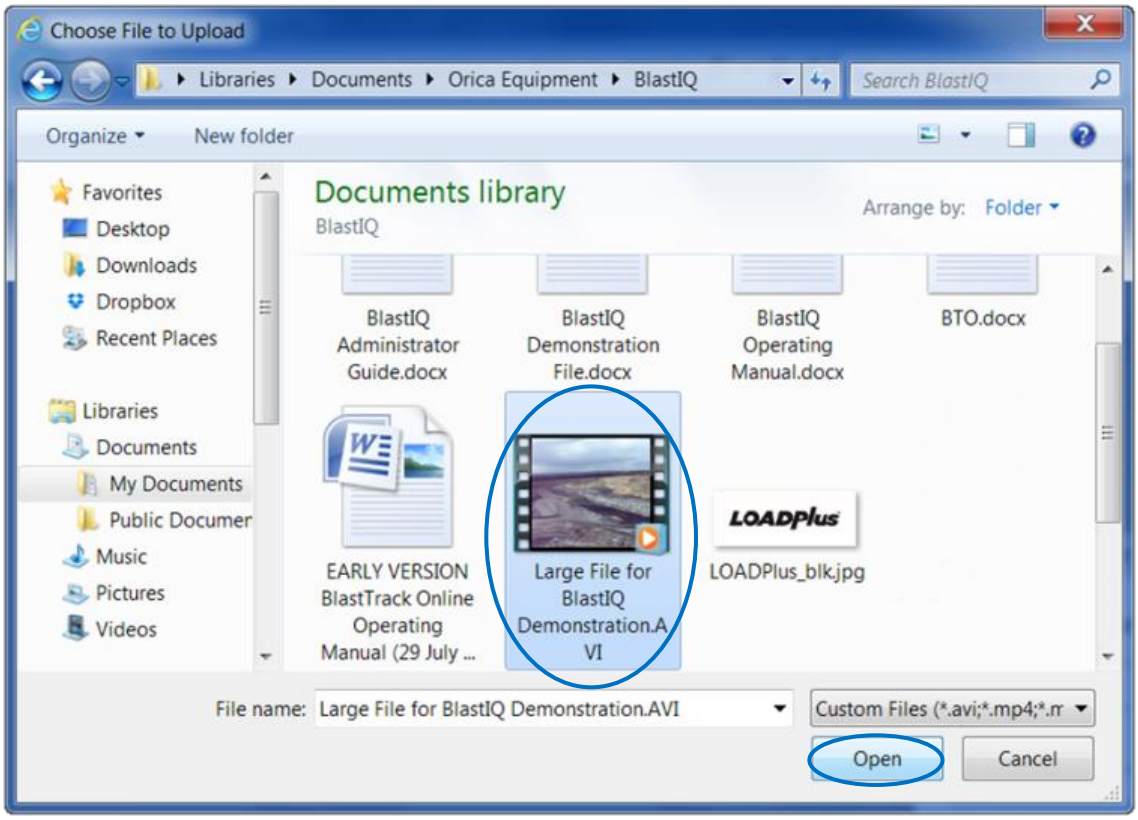
1. Select the **Overview** tab.
2. Select **Upload File**.



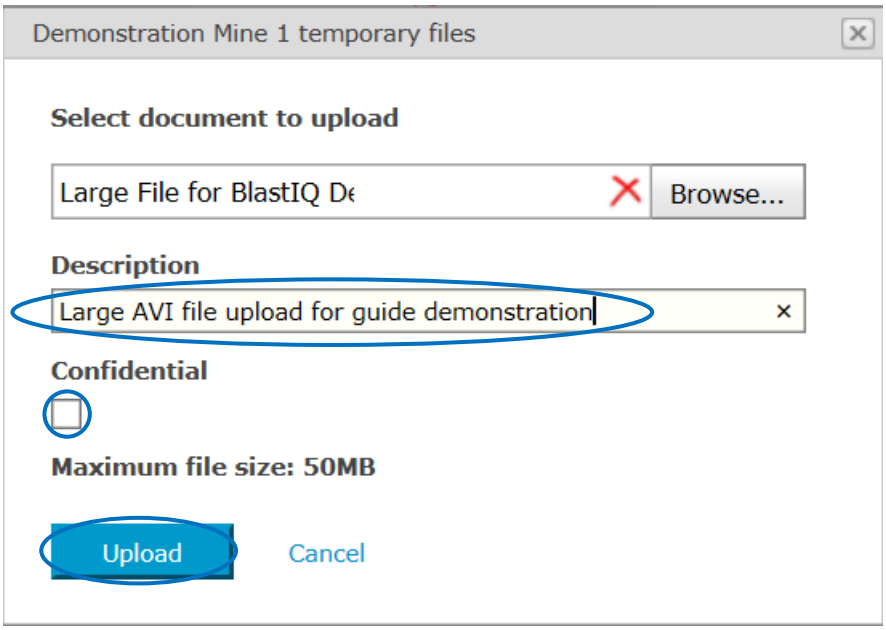
3. Select **Browse…**



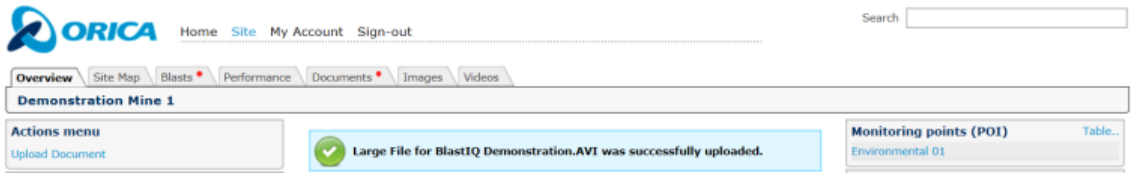
4. Locate the document to upload.
5. Select the file (it will become highlighted).
6. Select **Open**.



7. If required, enter a document description (optional).
8. If required, make the document **Confidential** by selecting the box (optional).
9. Select **Upload**.



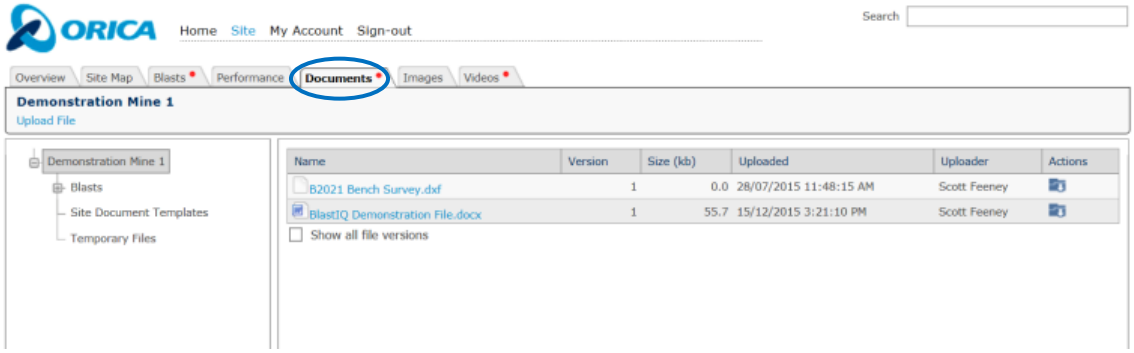
10. Successfully Uploaded message is displayed.



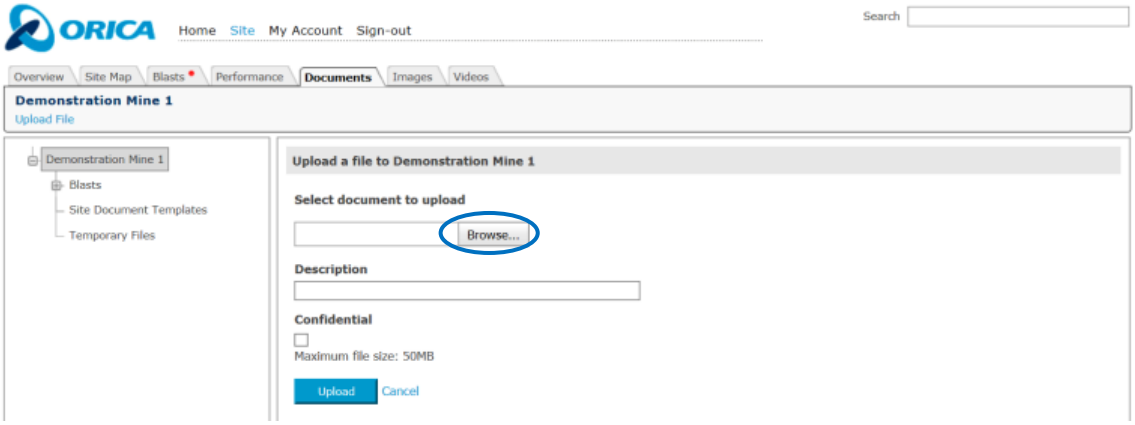
5.3 UPLOADING A FILE IN DOCUMENTS

Contributors can **Upload Files** from the **Documents** tab.

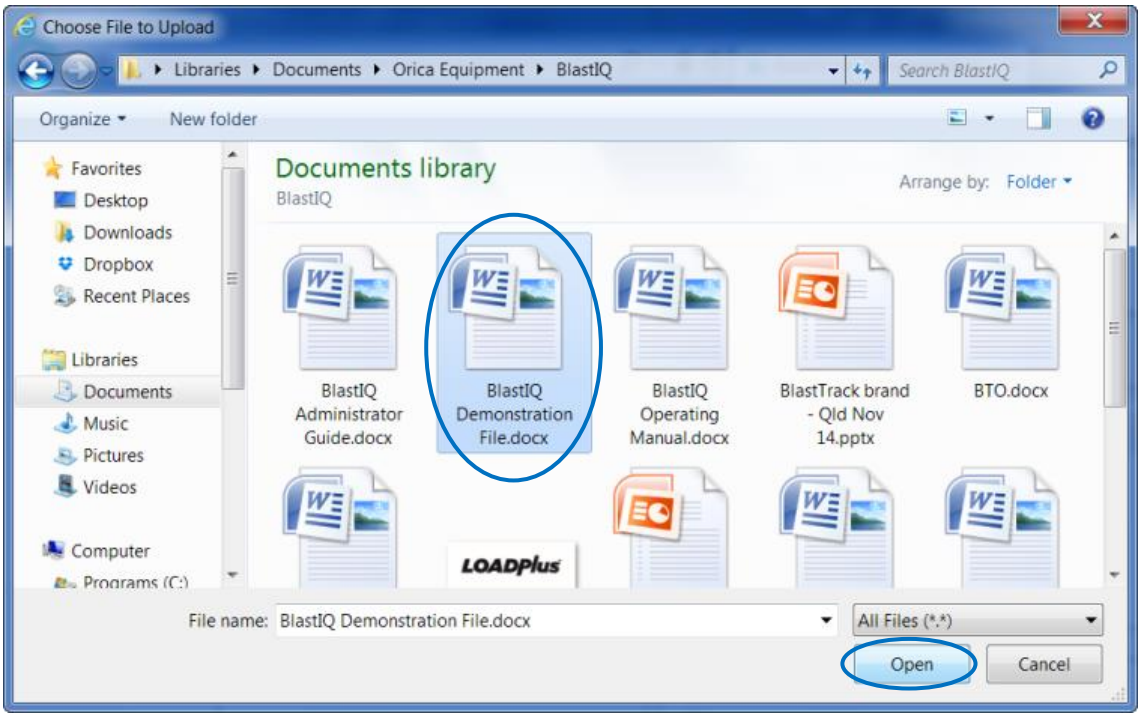
1. Select the **Documents** tab.



2. Select **Browse…**

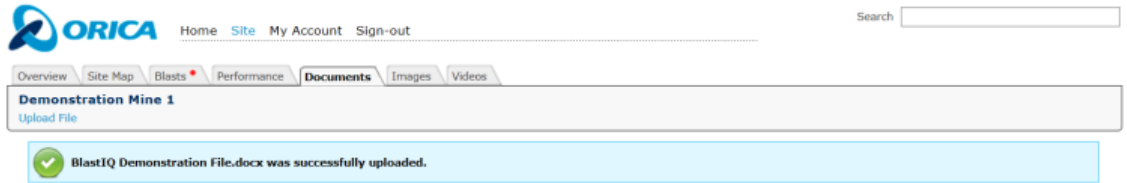


3. Locate the document to upload.
4. Select the file (it will become highlighted).
5. Select **Open**.



6. If required, enter a document description (optional).
7. If required, make the document **Confidential** by selecting the box (optional).
8. Select **Upload**.

9. Successfully Uploaded message is displayed.



6 USING BLASTIQ AS AN EDITOR

Section Revision:	**0**	**Revision Date:**	**August 2015**

6.1 OVERVIEW

Editors may view and edit all blasting information at a site subject to the confidentiality provisions.

Editors are able to perform all tasks from:

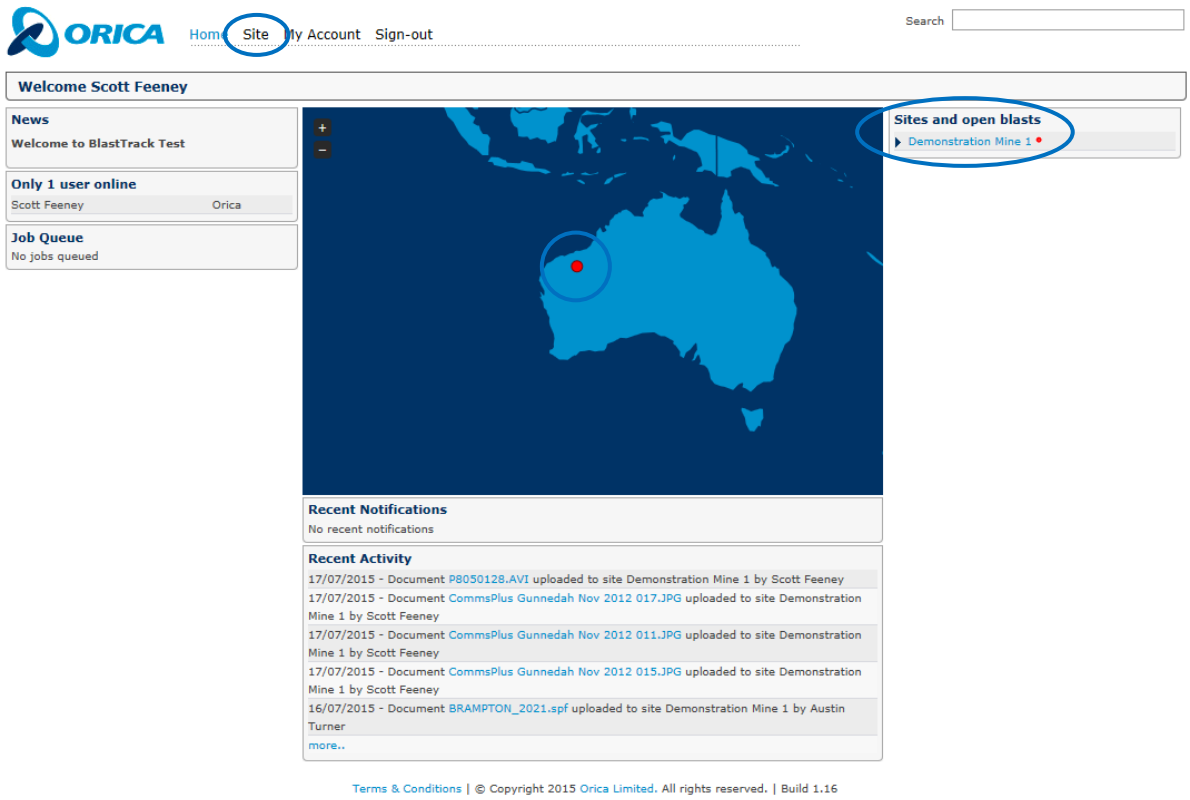
- Section 4 USING BLASTIQ AS A VIEWER
- Section 5 USING BLASTIQ AS A CONTRIBUTOR

Editor access is recommended for most users at a site that are involved in the blasting process, such as Engineers, Supervisors, Shotfirers and Surveyors.

6.2 EDITING SITE INFORMATION

Access to sites on BlastIQ is available in three ways:

- Selecting the **site** hyperlink listed under *Sites and open blasts*
- Selecting the appropriate **red dot** (site location) on the map
- Selecting **Site** / site name



The site homepage is displayed.

6.3 CREATING AND EDITING POINTS OF INTEREST

Points of interest describe any point or feature that needs to be noted on the site map. These can be:

- Facilities (offices, processing plant, sensitive structures)
- Survey stations
- Environmental monitors

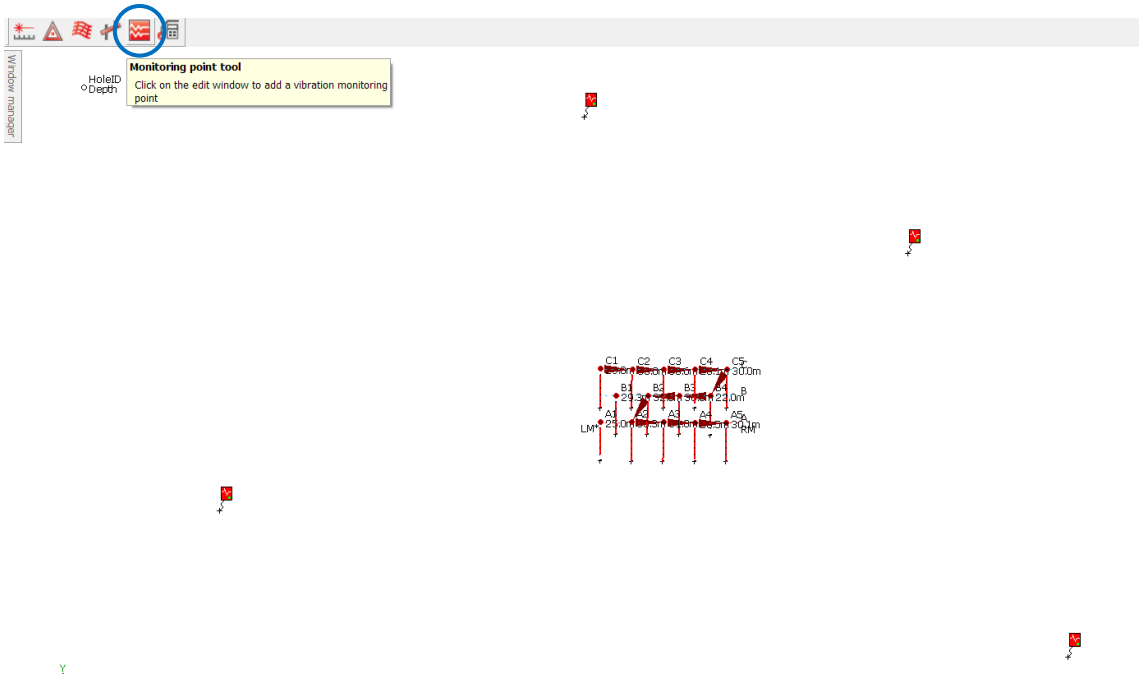
If the site manager has enabled “Environmental monitoring” in **Optional Features** (see Section 7.2.2), environmental monitors must be defined as points of interest to display data.

6.3.1 Uploading Points of Interest from a SHOTPlus5™ File

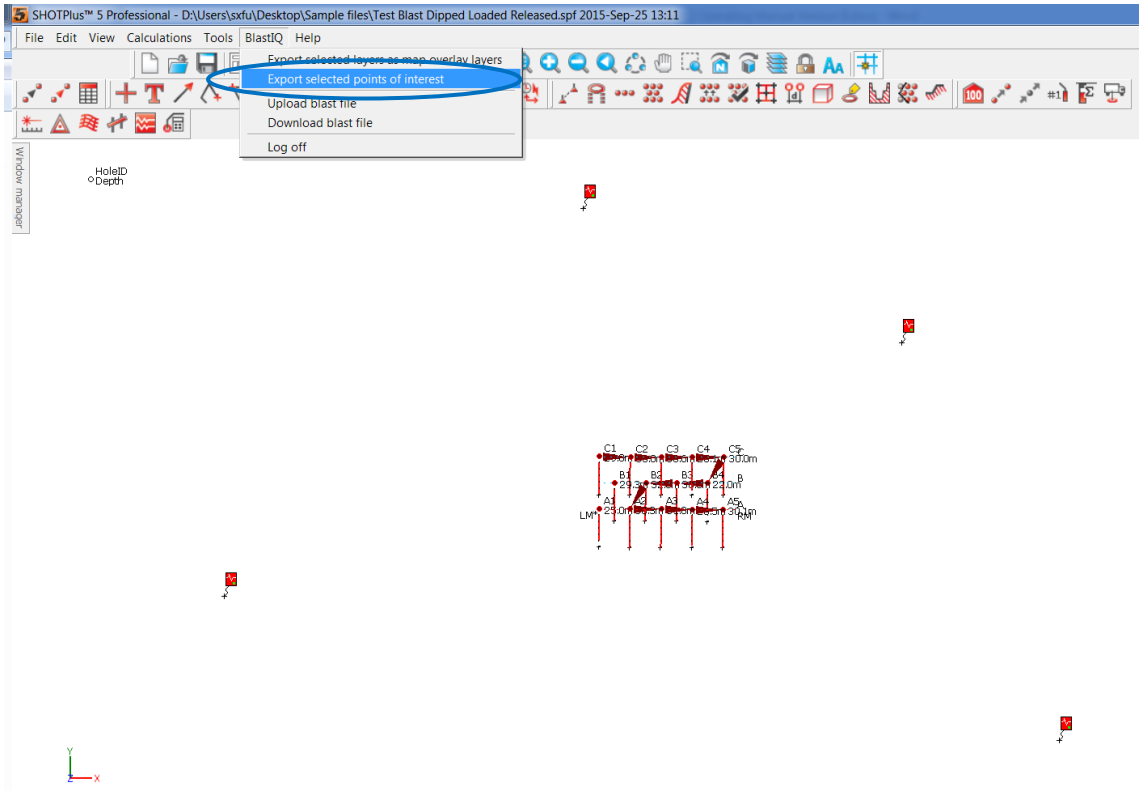
Points can be added to a SHOTPlus5™ file and then exported into BlastIQ as a .poi file.

1. Open a SHOTPlus file in the location of the site.
2. Add points of interest using . Label points using .

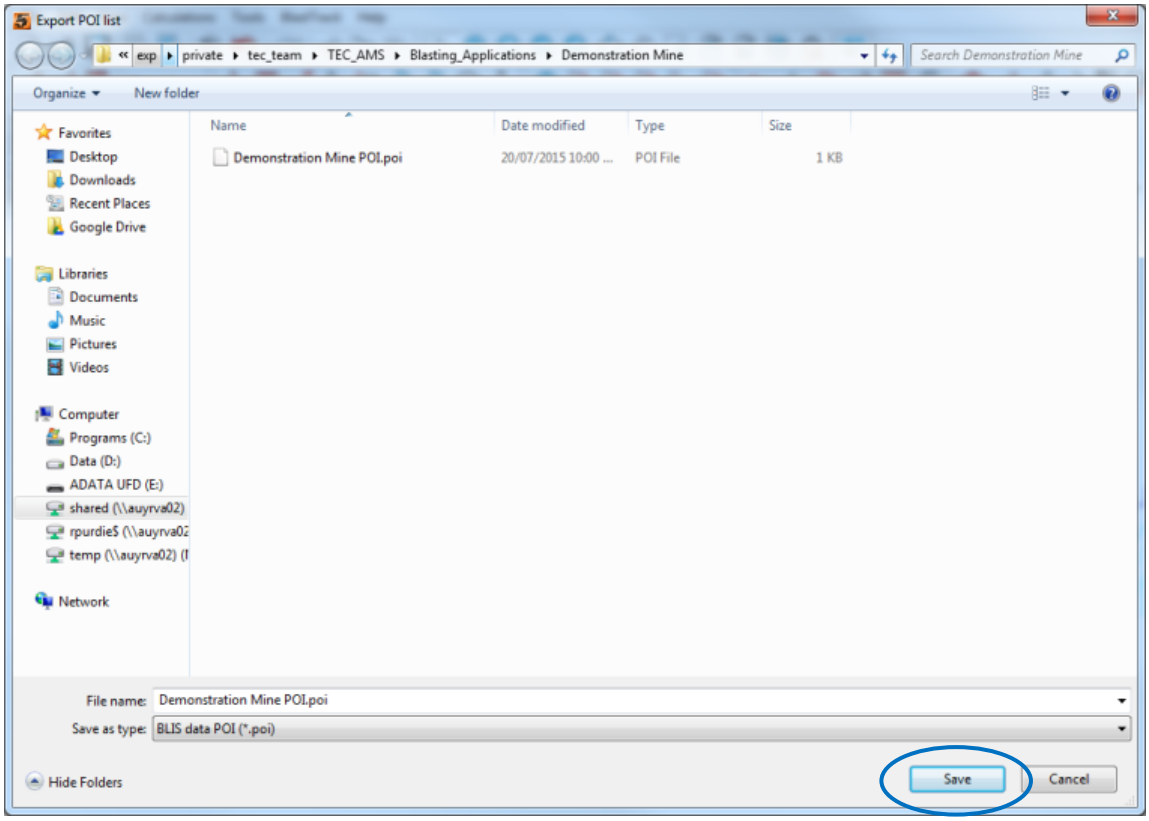
   For environmental monitors use .



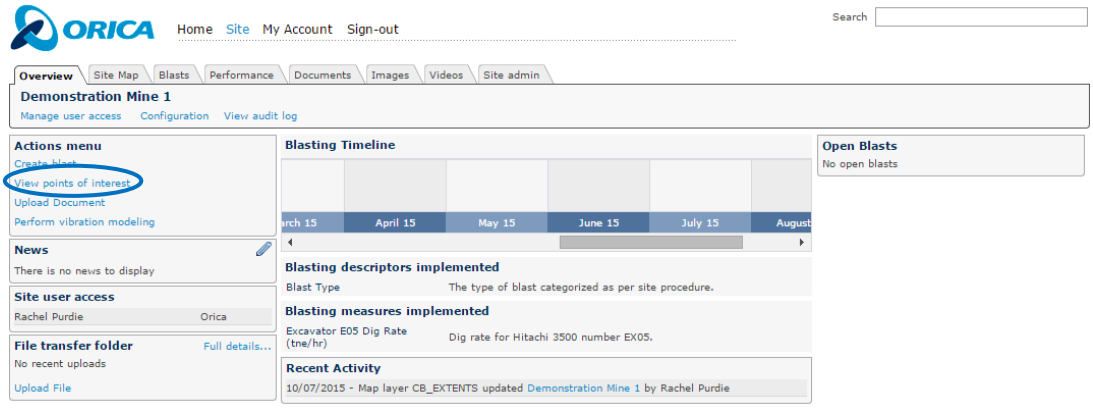
3. Select all points and click **BlastIQ / Export selected points of interest**.



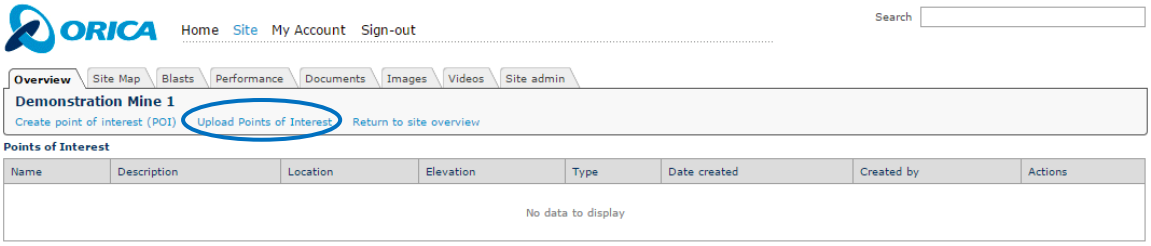
4. Save the .poi file in the appropriate folder.



5. From the site overview page, select **View points of interest.**

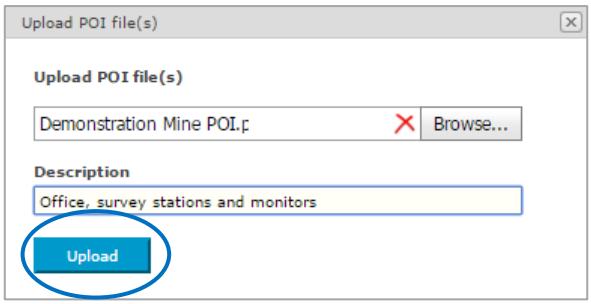


6. If points of interest have been defined in a SHOTPlus5™ file, select **Upload Points of Interest.**



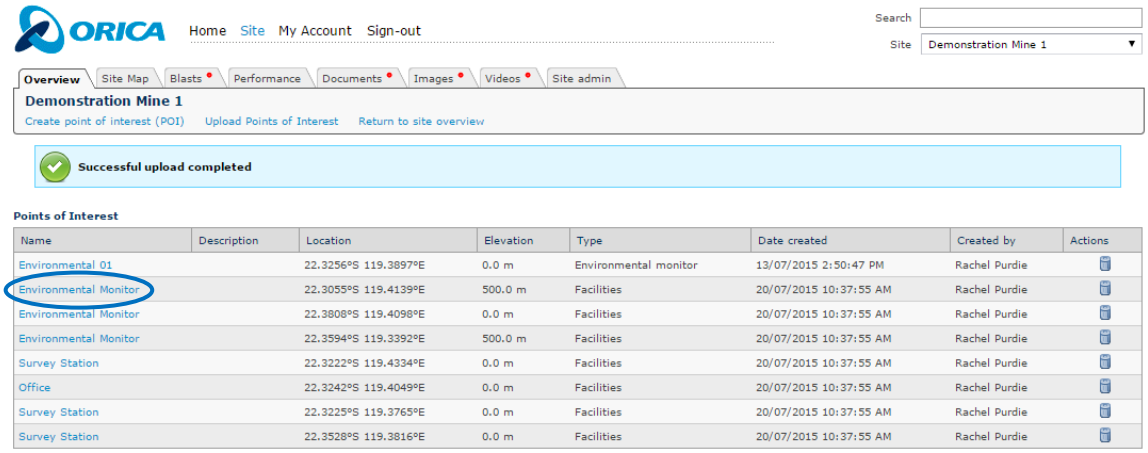
7. **Browse** for the saved .poi file.

8. Add a description if required and click **Upload.**

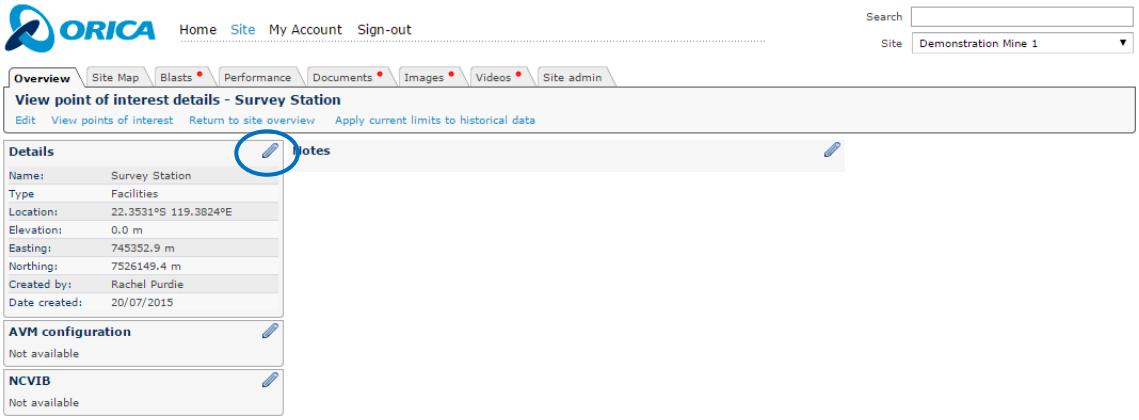


The points will now be displayed in list form.

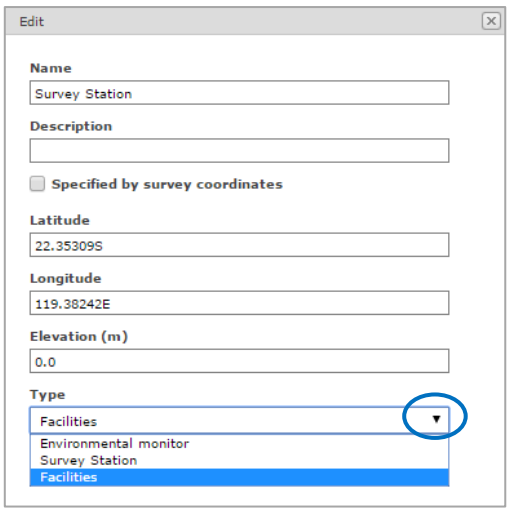
9. Change the **Type** of point by clicking on the **Name**.



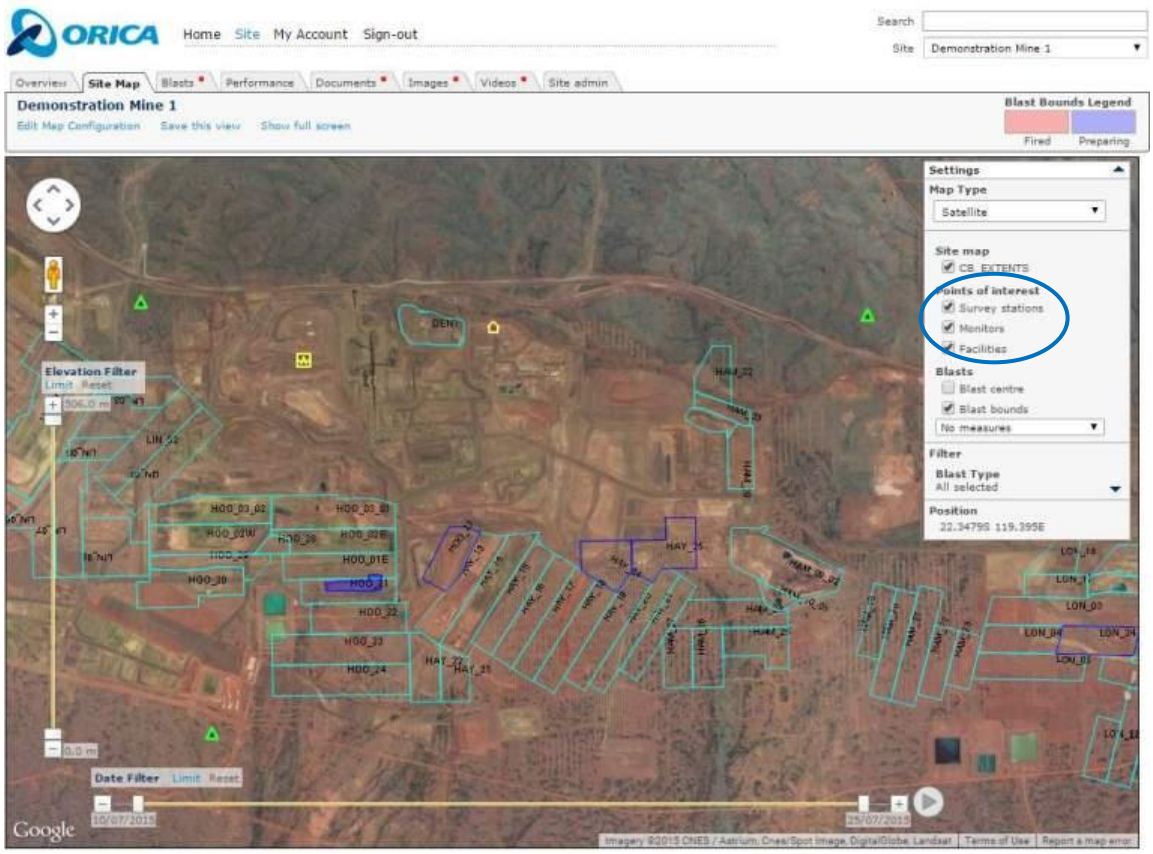
10. Click on the **Edit** icon next to **Details.**



11. Change the **Type** of point from the drop down list.

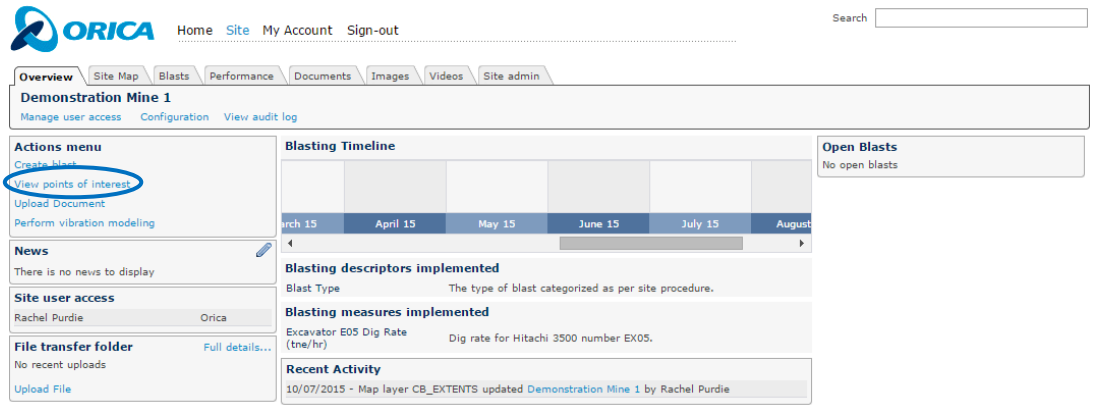


The points will now be visible on the site map. They may be hidden or shown using the tick boxes.

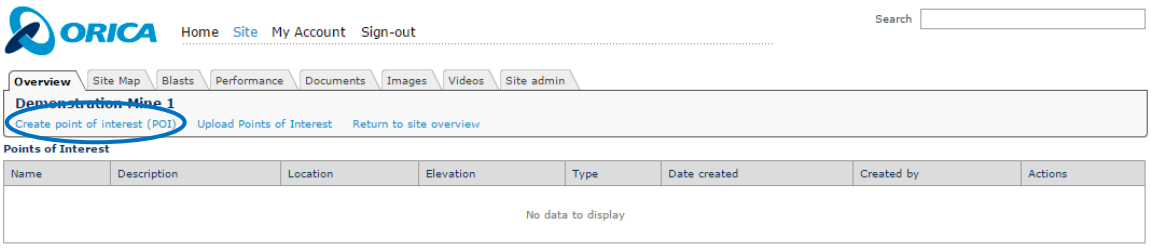


6.3.2 Creating Points of Interest in BlastIQ

1. From the site overview page, select **View points of interest.**



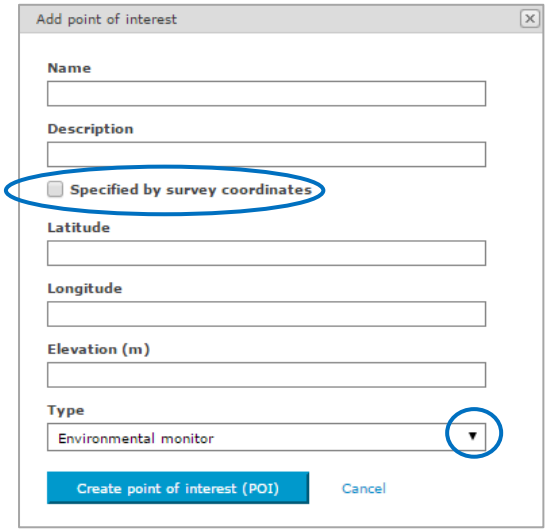
2. To create a point of interest, select **Create point of interest (POI)**.



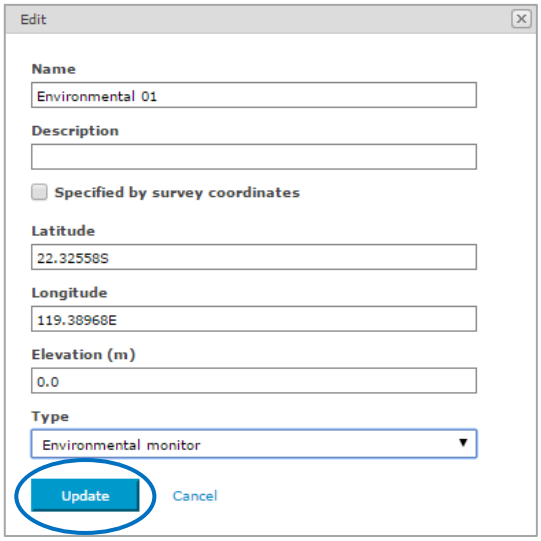
3. Enter in the point **Name** and **Description**. By default it will prompt for coordinates in Latitude/Longitude, however this can be changed to easting/northing by selecting the tick box **Specified by survey coordinates.**

   Select the **Type** of point from the drop down box as either **Environmental monitor, Survey station,** or **Facilities.**

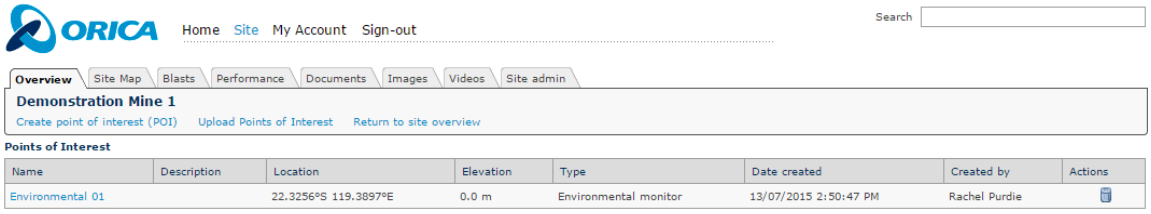
   - **Environmental monitor** will prompt for additional information when editing (see Section 6.3.3).
   - **Survey station** are for display only on the map
   - **Facilities** is used for sensitive structures, and every blast that is created will calculate its distance to each facility.



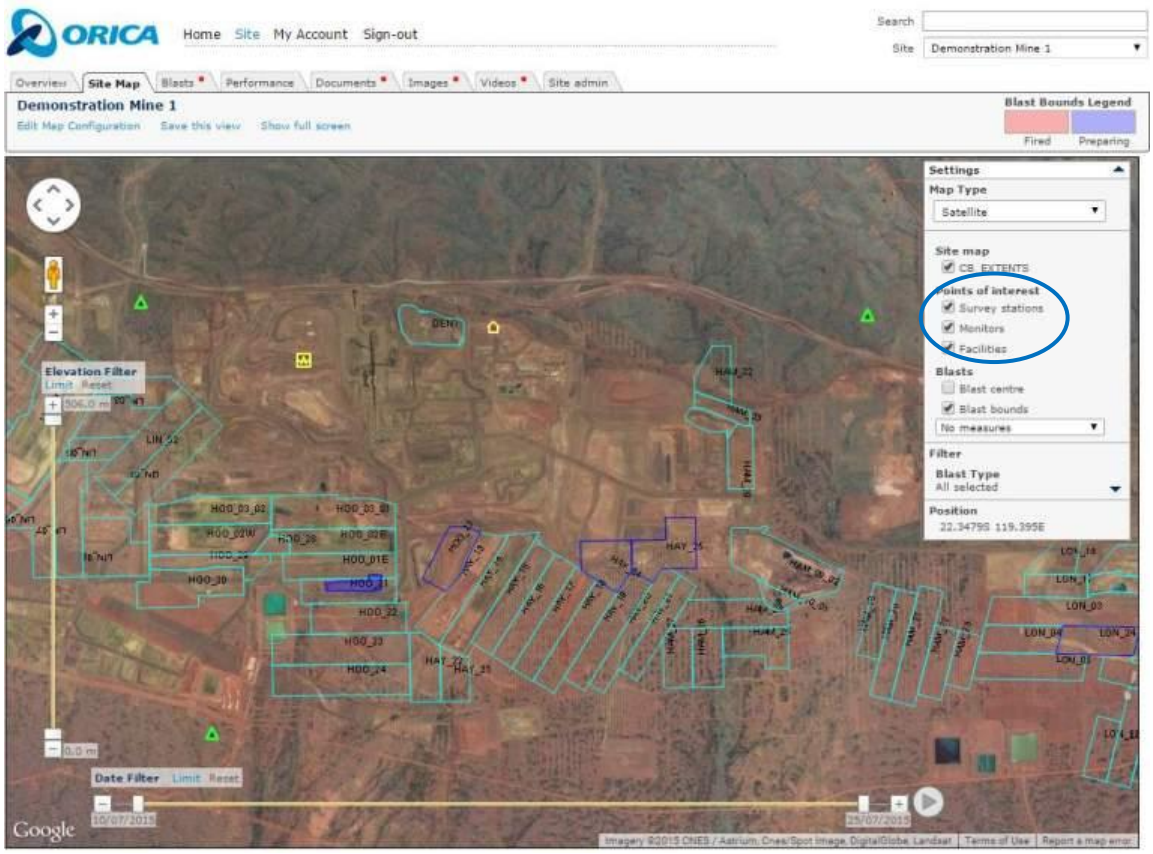
4. Once information has been entered, select **Update**.



5. Points of interested are then added in list form.

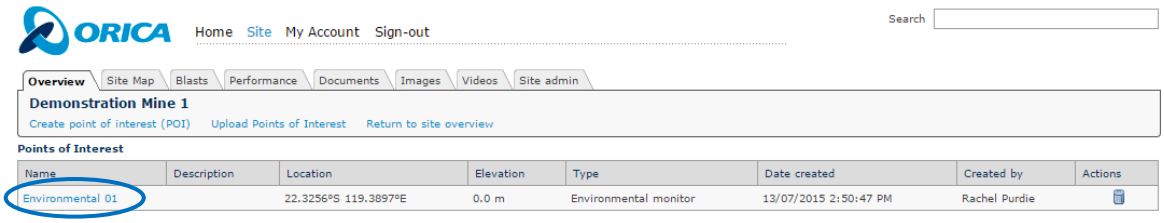


The points will now be visible on the site map. They may be hidden or shown using the tick boxes.

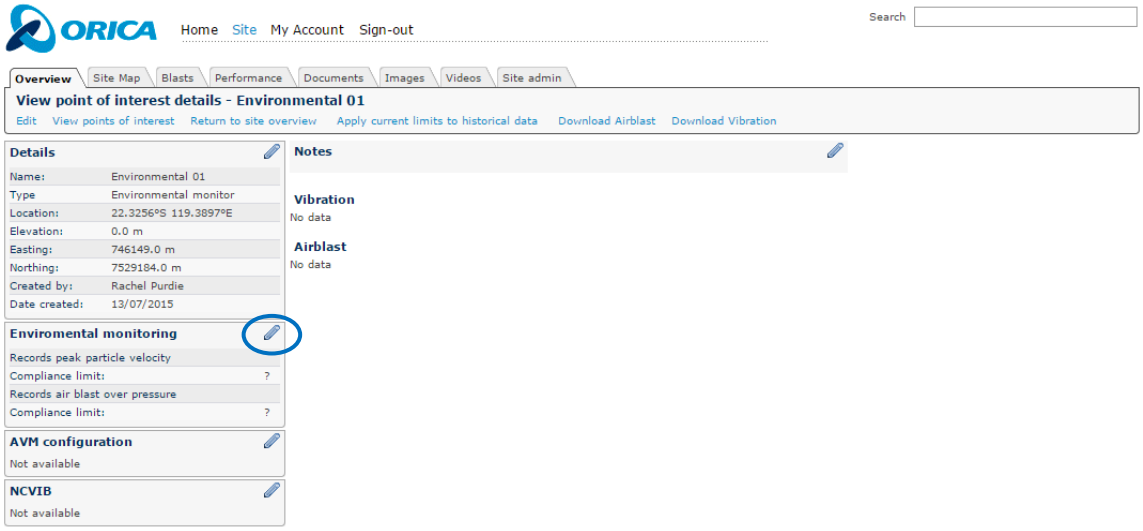


6.3.3 Configuring Environmental Monitors

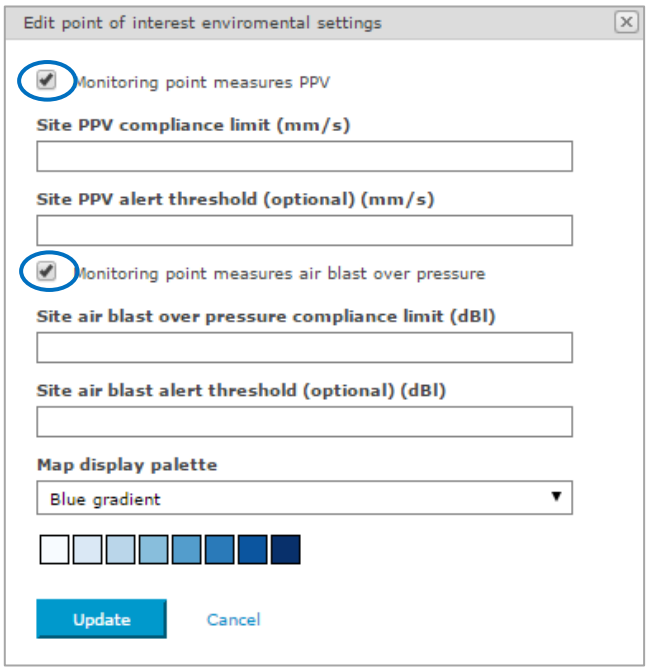
1. View details and edit a point of interest by clicking on the **Name**.



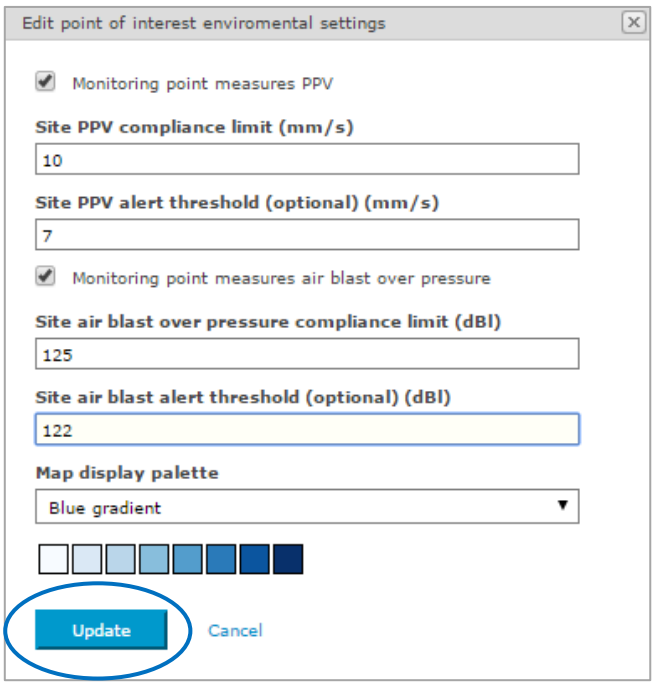
2. Select the edit icon next to **Environmental monitoring**.



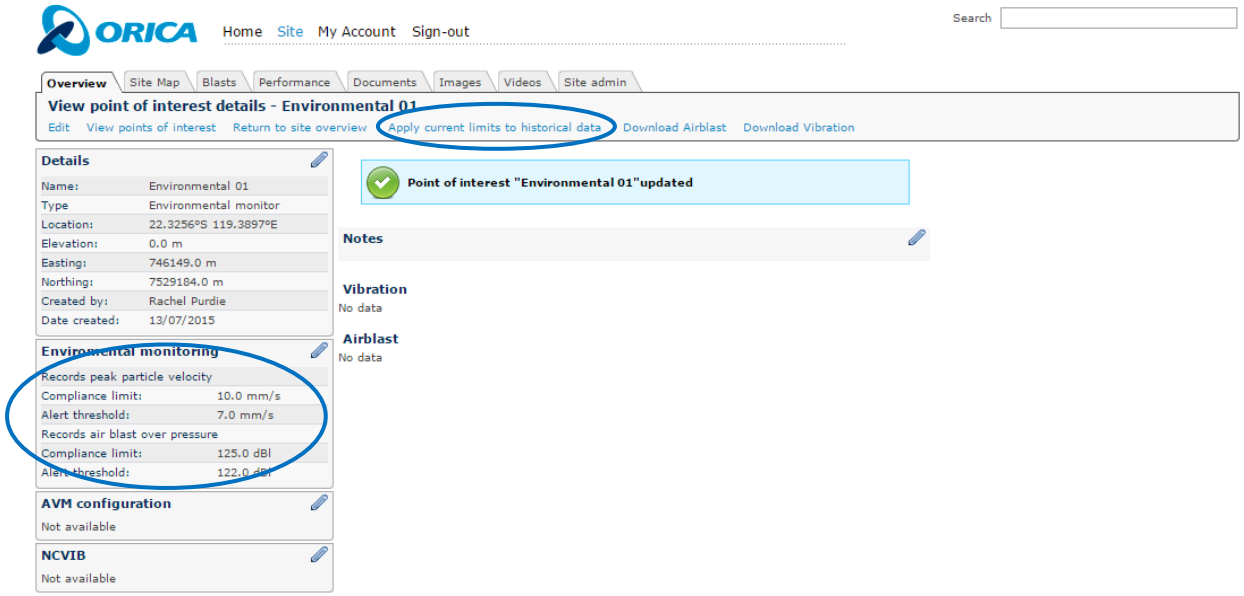
3. Select to monitor vibration, air blast or both at this point and set up compliance and alert limits.
    - Blast results over the **Compliance limit** will appear red on the site map.
    - Blast results over the **Alert threshold** will appear yellow on the site map.
    - Blast results under both the **Compliance limit** and **Alert threshold** will appear green on the site map



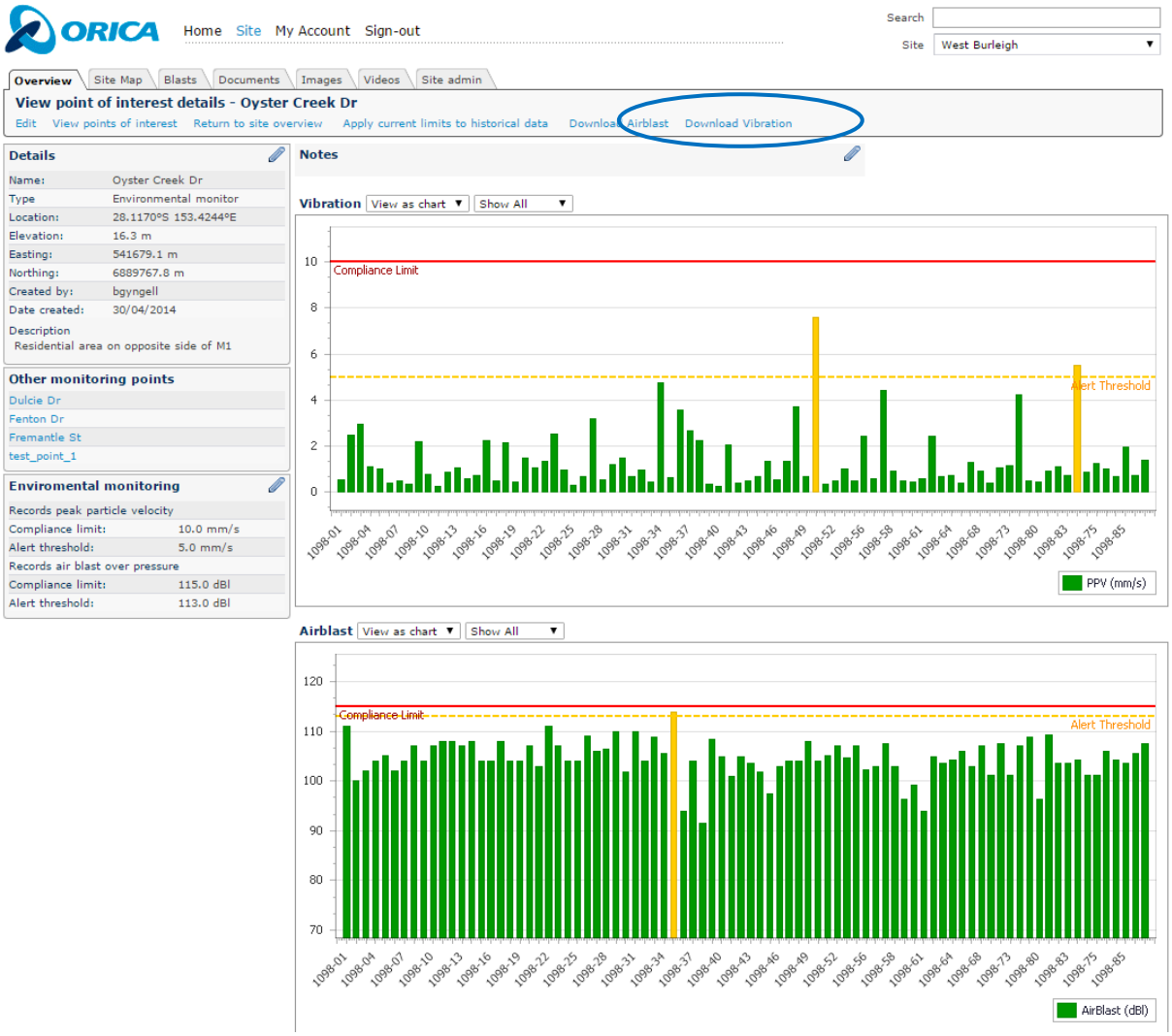
4. Select **Update** once the information has been entered.



The information will then be added to the **View points of interest details** page. If compliance and alert limits are adjusted, only blasts uploaded after that point will be affected. If the new limits are to be applied to all historical data, select **Apply current limits to historical data.**



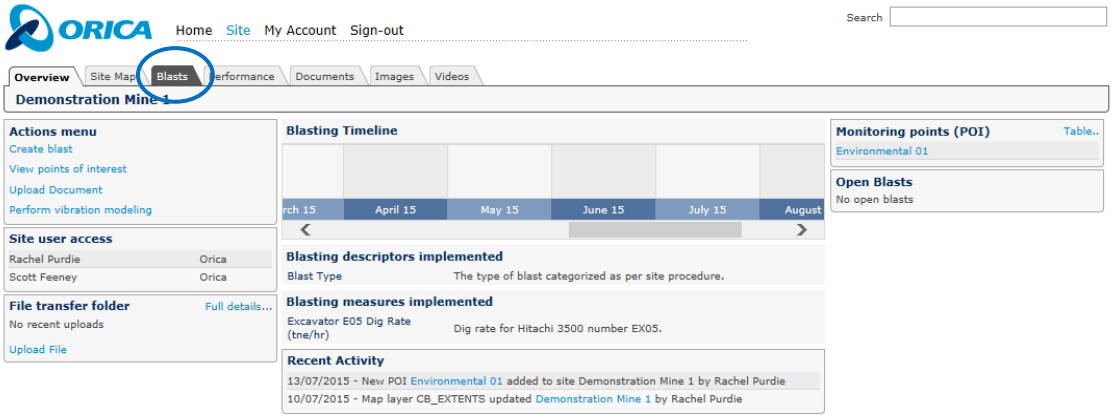
After data is entered, more information will appear on the page including graphs and tables. Select **Download Airblast** and **Download Vibration** to extract all data from the point of interest as a .csv file.



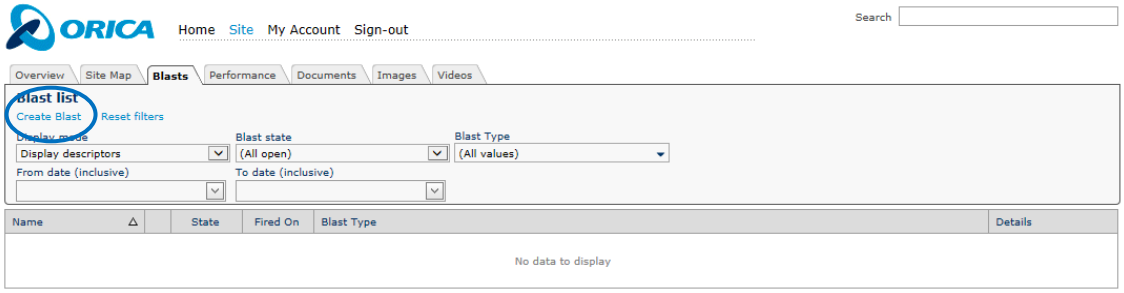
NOTICE **The AVM and NCVIB configuration is currently not available.**

6.4 CREATING NEW BLASTS

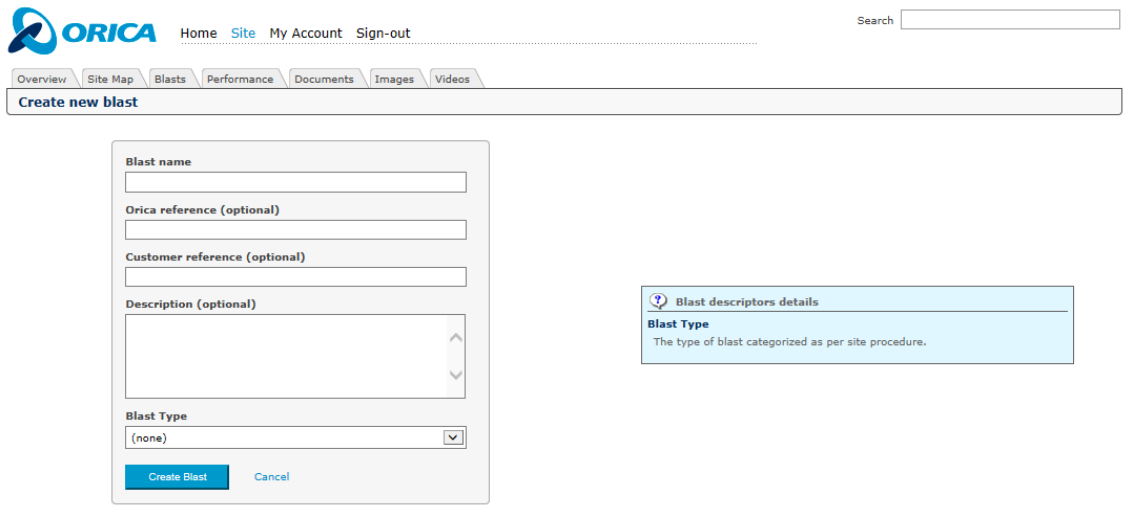
1. Select the **Blasts** tab.



2. Select **Create Blast**.



The **Create new blast box** opens.



3. Enter information in the relevant areas.

   Blast name is how your blast will be identified across the BlastIQ system. It may be the same as other sites. You cannot have two open blasts with the same name.

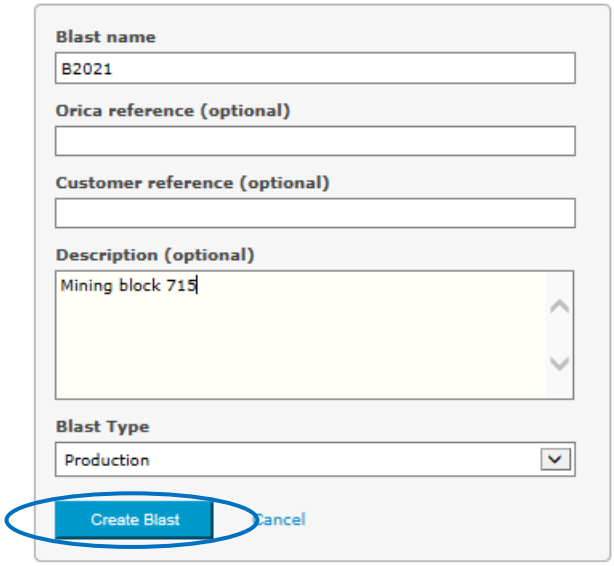
   Orica reference (optional) can be used for alternative names, if required. This may be used at some sites if a different name is used by the site and Orica.

   Customer reference (optional) can be used for alternative names, if required. This may be used at some sites if a different name is used by the site and Orica.

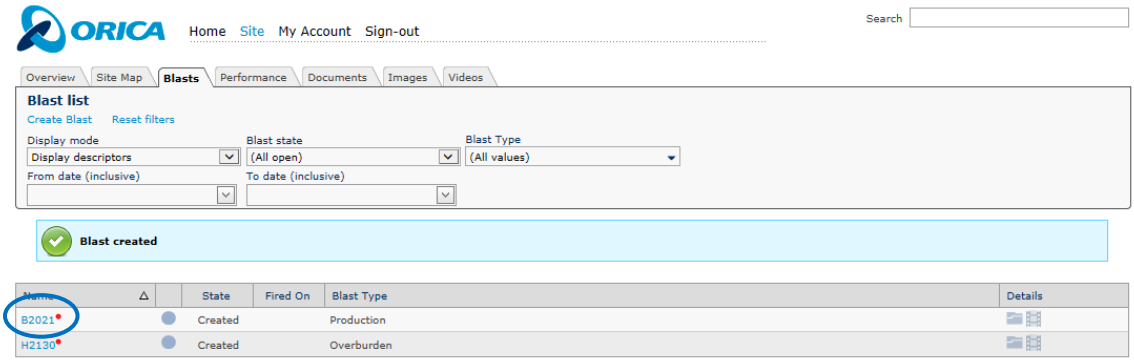
   Description (optional) is a free field to write any further description information.

   Below *Description* will be listed any descriptors that were defined by the site manager. In this example, **Blast Type** has been defined.

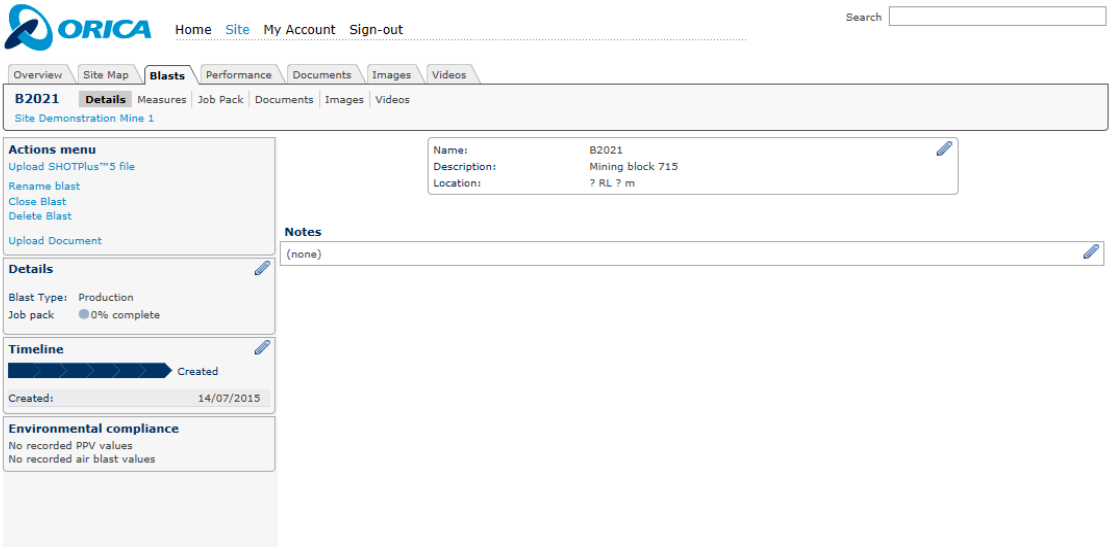
4. Select **Create Blast**.



5. The blast (B2021) is added to the Blast list and a “Blast created” message is received.
6. Select a blast by clicking on the blast name.



7. The selected blast opens and the current information is displayed.

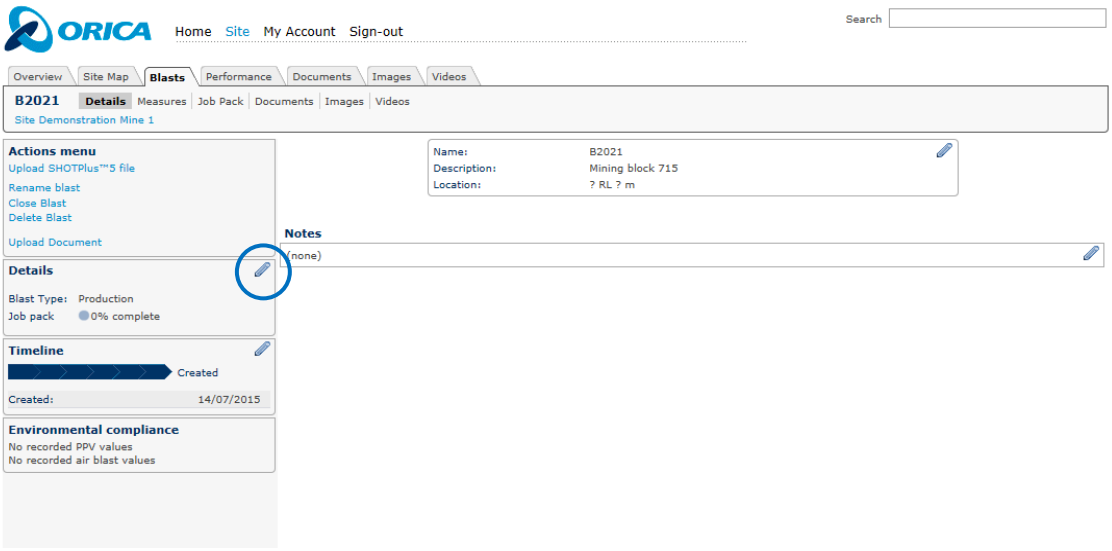


6.5 EDITING THE BLAST DETAILS

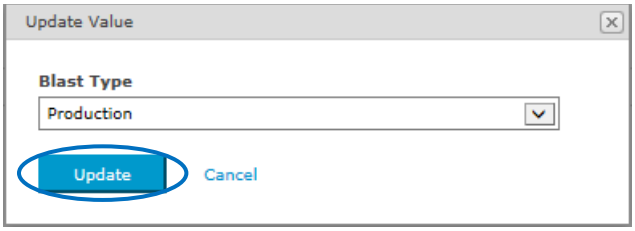
6.5.1 Details

This feature allows you to edit the site descriptors.

1. Select the **edit** (pencil) icon in the *Details* box.



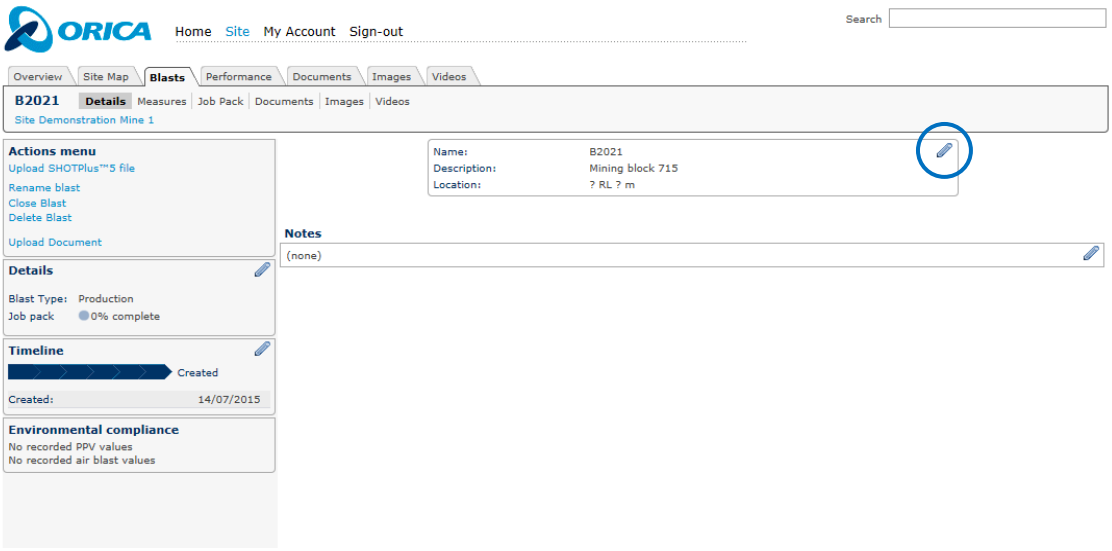
2. Make the changes.
3. Select **Update**.



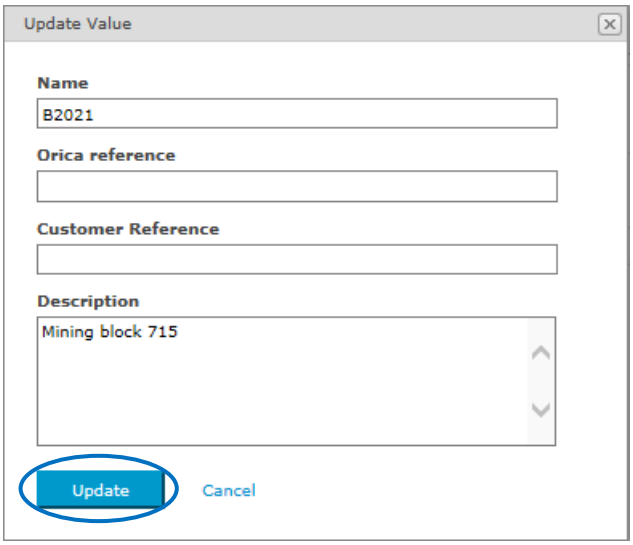
6.5.2 Name

This feature allows you to edit the name information for the blast.

1. Select the **edit** (pencil) icon in the *Name* box.



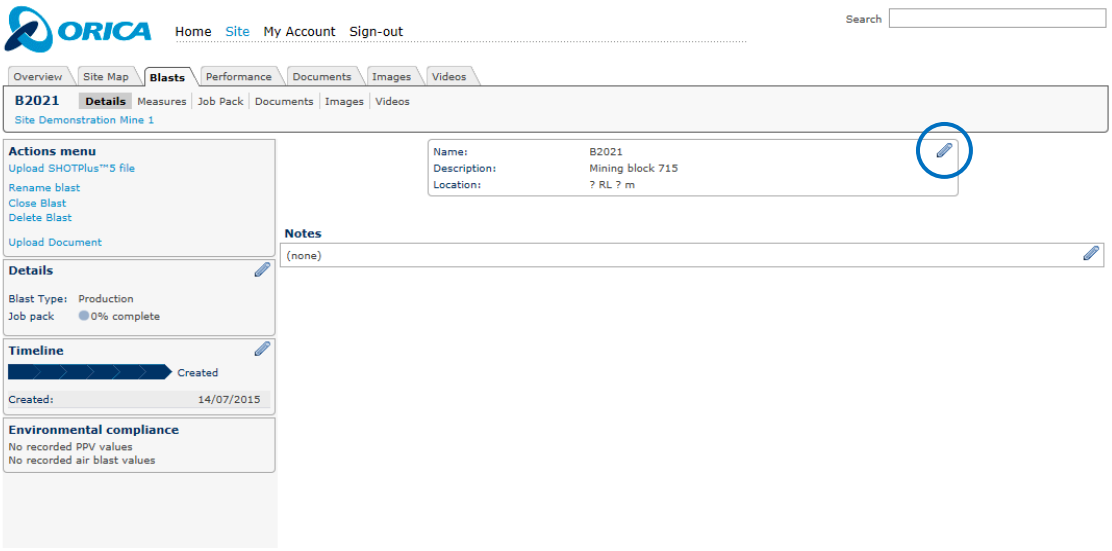
4. Make the changes.
5. Select **Update**.



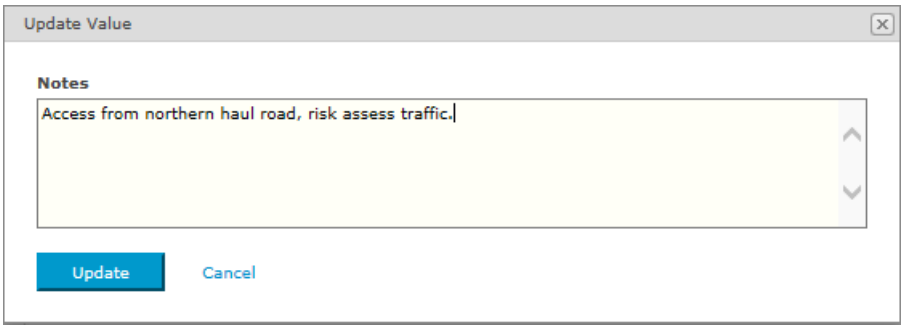
6.5.3 Notes

This feature allows you to add additional notes.

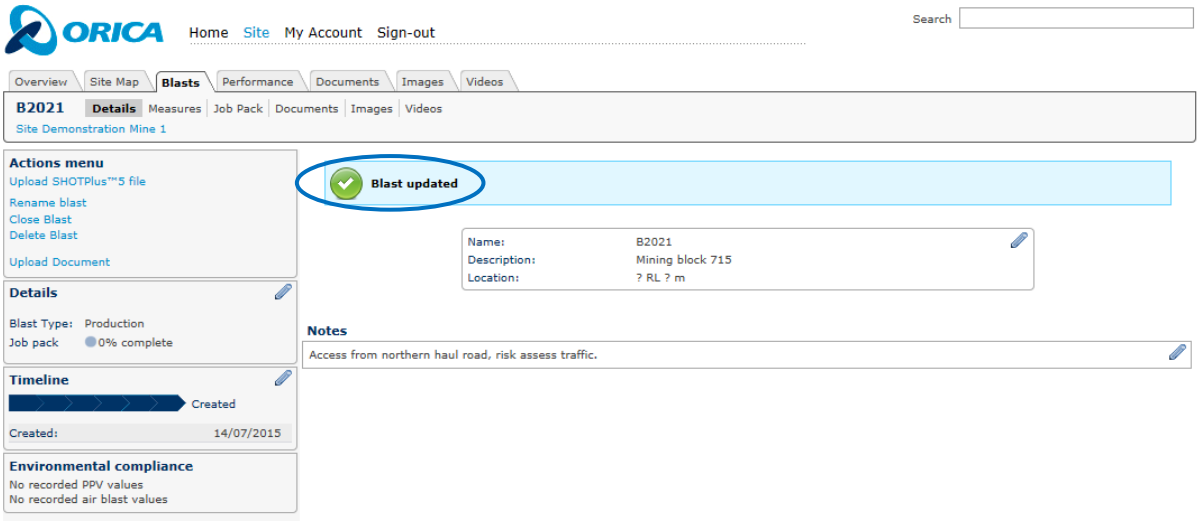
1. Select the **edit** (pencil) icon in the *Name* box.



2. Add the additional notes.
3. Select **Update**.



New and/or updated information is displayed and the **Blast updated** message is received.



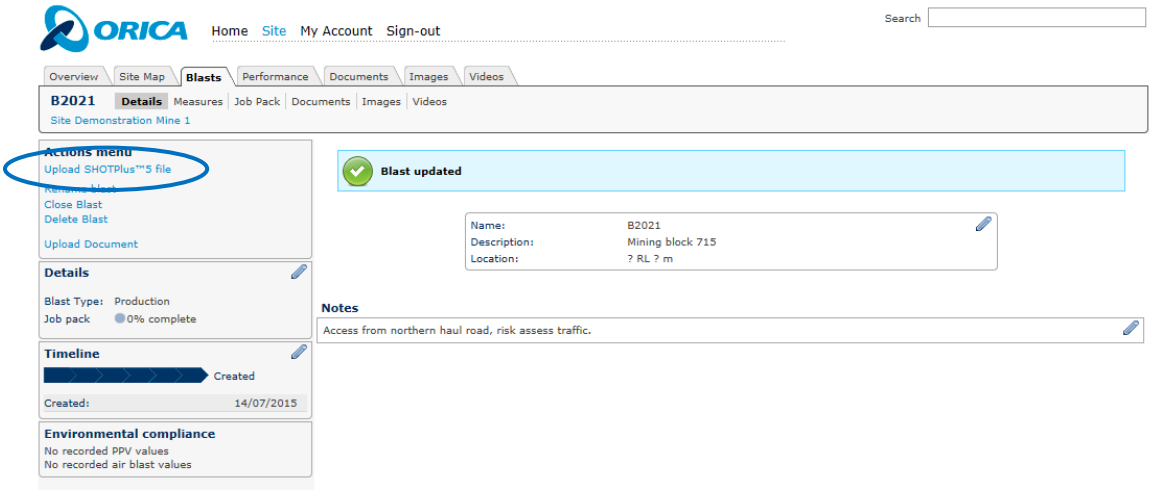
6.6 UPLOAD SHOTPLUS 5 FILE

The SHOTPlus 5 file can uploaded using the **Upload SHOTPlus 5 file** hyperlink, or by using the process described in Section 9.3.

NOTICE

SHOTPlus 5 files cannot be uploaded to a blast that has been created by the LOADPlus system.

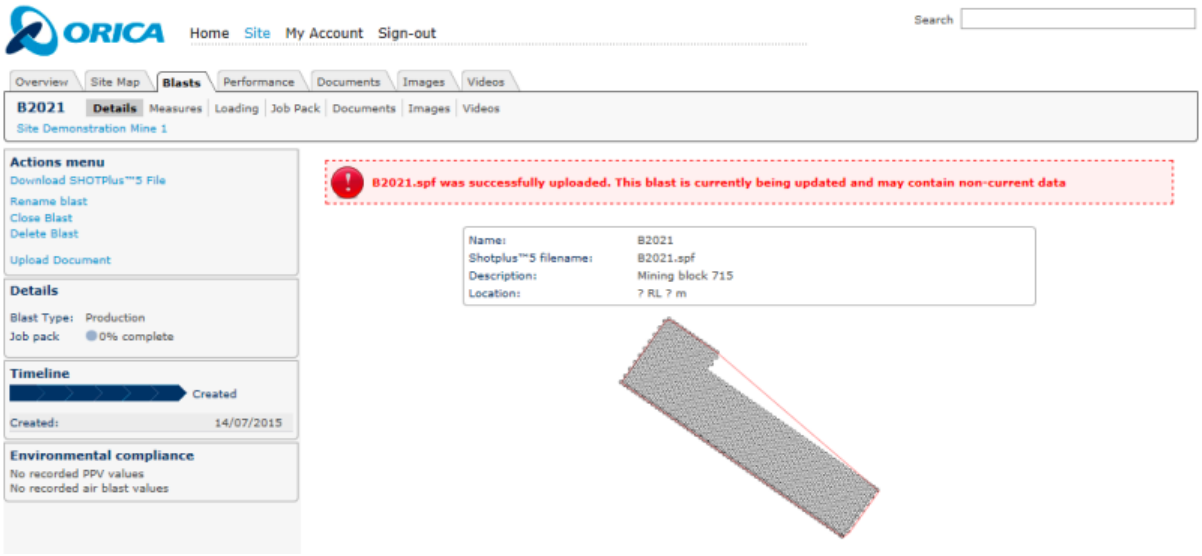
1. Select **Upload SHOTPlus 5 file**.



2. **Browse** for the file to be uploaded
3. Select **Upload**.

While the system is processing, the edit options are locked (shown below by the absence of the edit pencils).

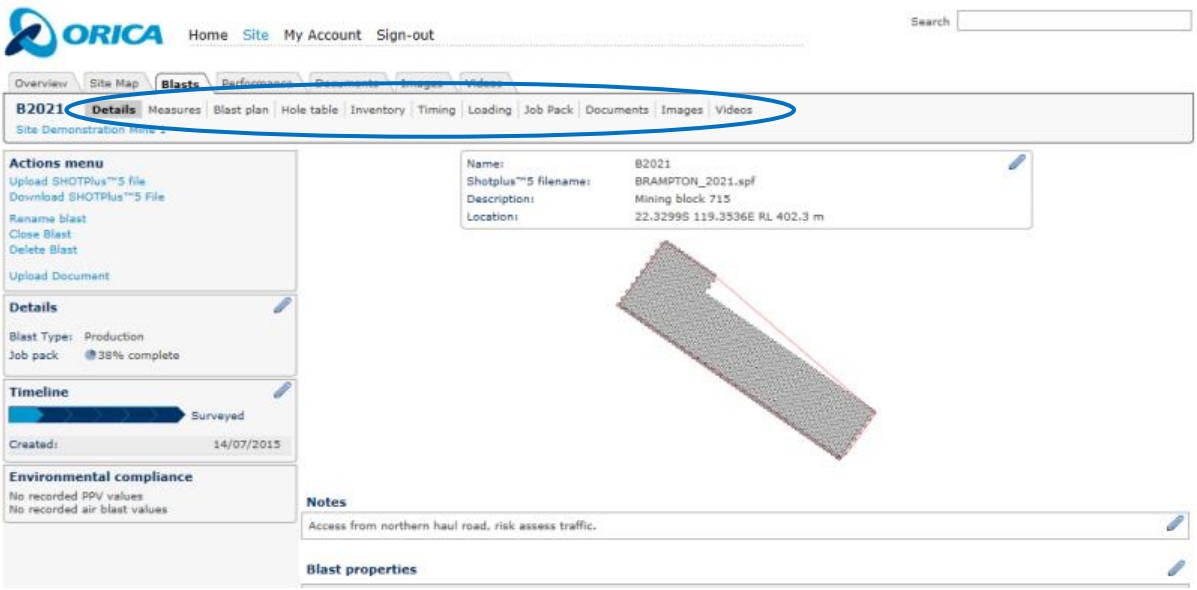
This processing may take several minutes depending upon the size of the file.



Periodically refresh the webpage until the blast is updated with the new information.

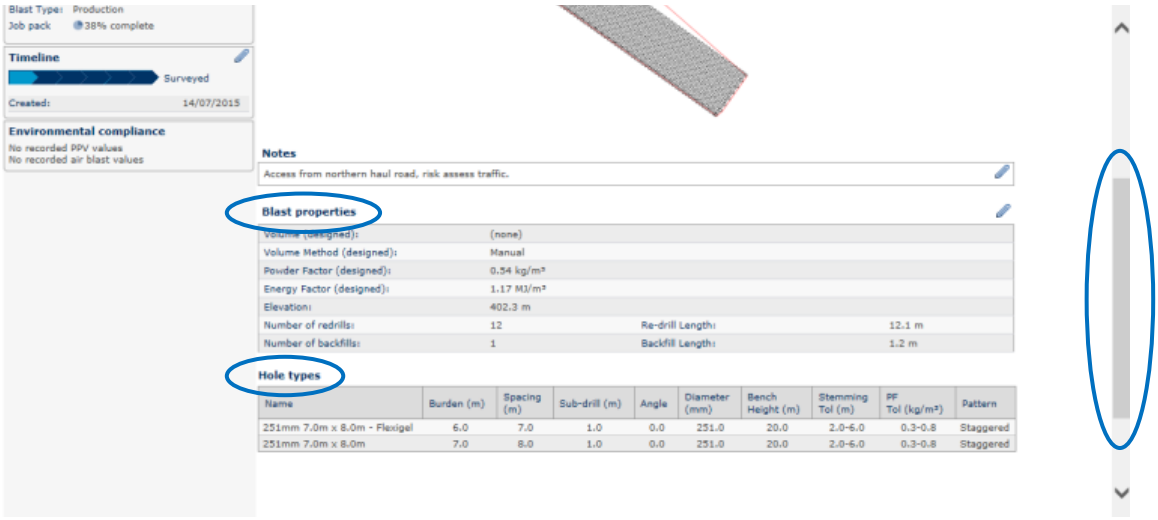
Additional tabs will appear. Depending on the site settings, they may include:

- Blast plan
- Hole table
- Inventory
- Timing



Two additional tables have appeared (accessed by scrolling down):

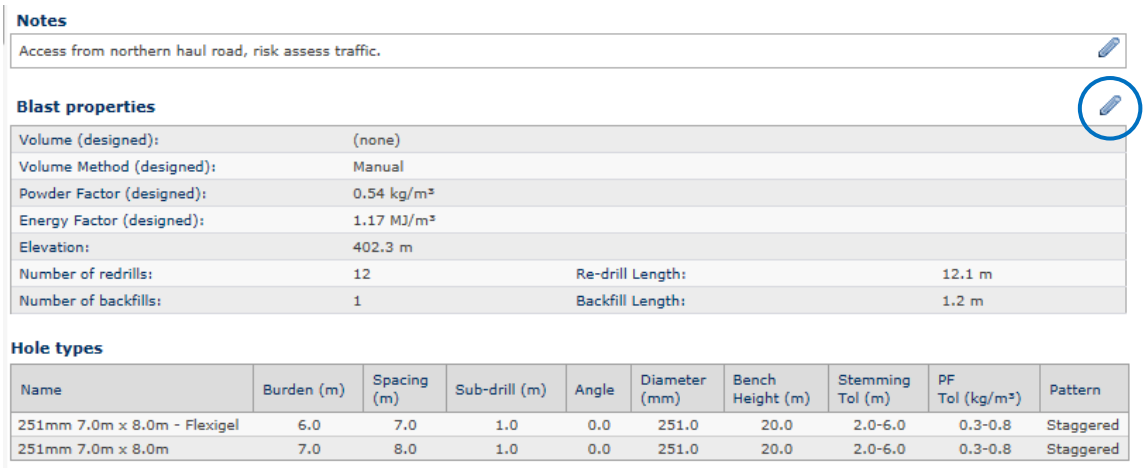
- Blast properties
- Hole types



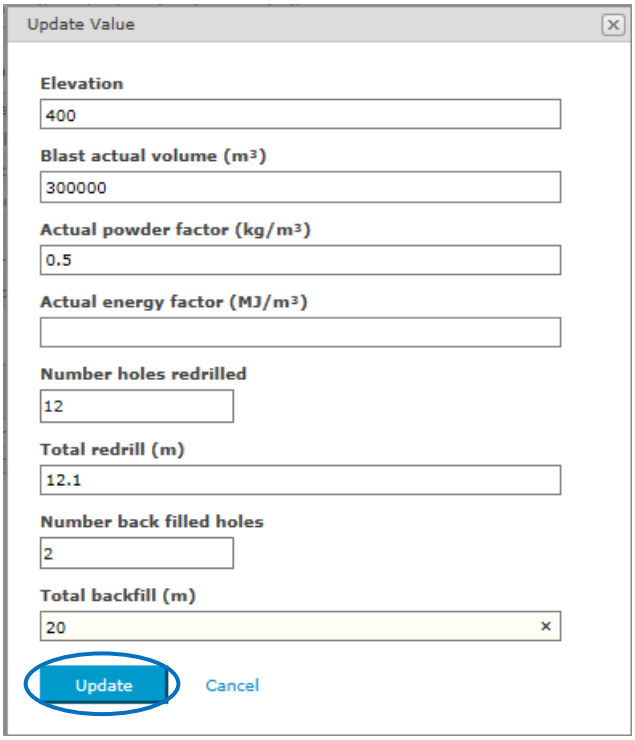
6.7 EDIT BLAST PROPERTIES

Blast properties are extracted from the SHOTPlus file, however in certain circumstances, the user may wish to calculate the values separately and manually update them.

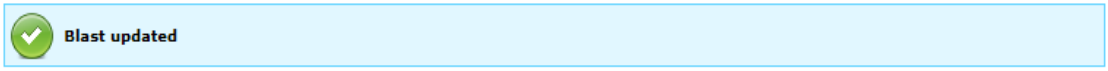
1. Select the **Blast properties edit** (pencil) icon.



2. Enter any new values.
3. Select **Update**.



4. **Blast updated** message is received.



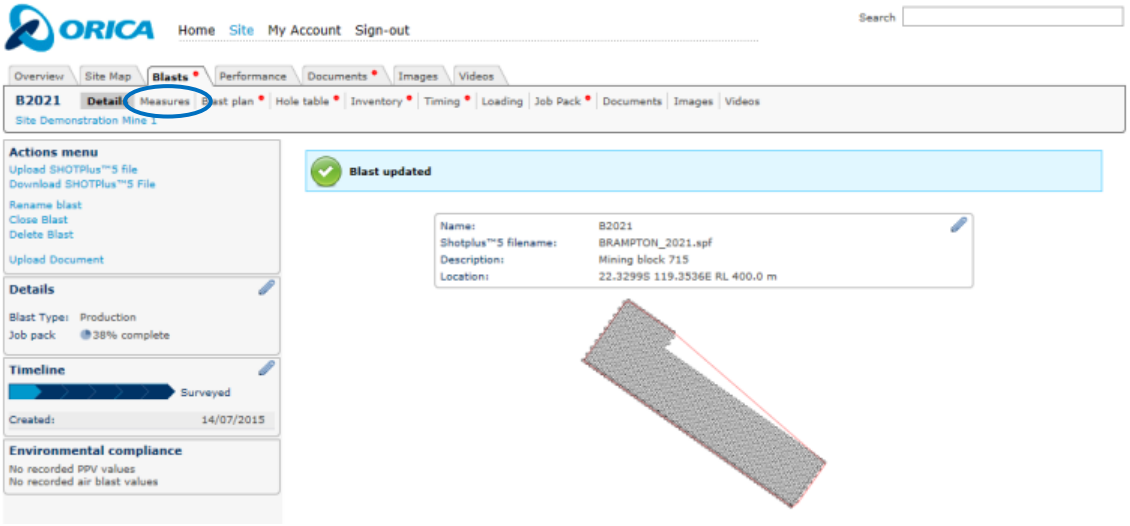
5. The updated values are displayed under **Blast properties**.

Blast properties

Volume (designed):	(none)	Volume (actual):	300000.0 m³
Volume Method (designed):	Manual		
Powder Factor (designed):	0.54 kg/m³	Powder Factor (actual):	0.50 kg/m³
Energy Factor (designed):	1.17 MJ/m³		
Elevation:	400.0 m		
Number of redrills:	12	Re-drill Length:	12.1 m
Number of backfills:	2	Backfill Length:	20.0 m

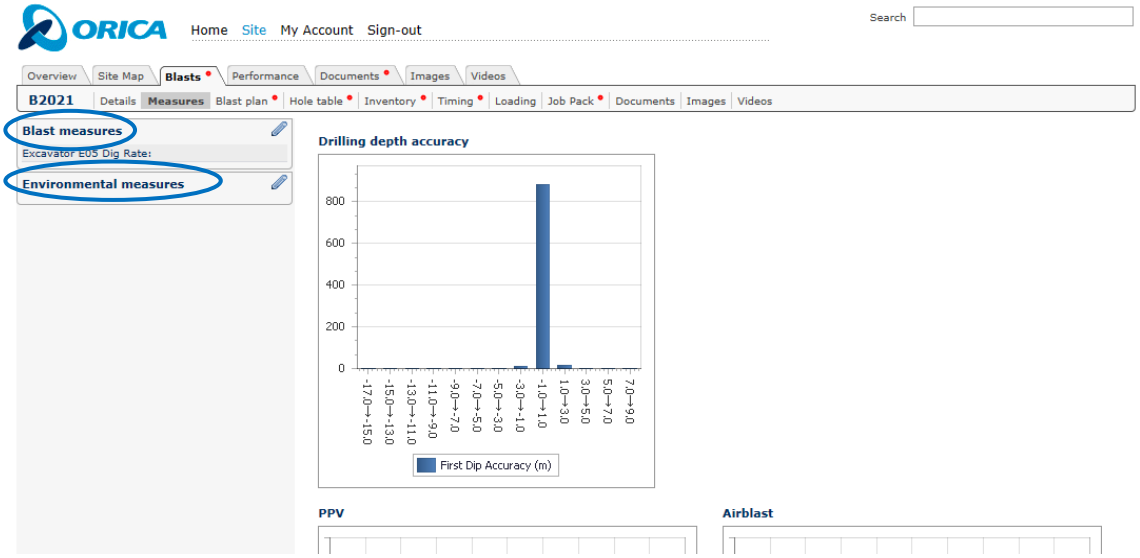
6.8 RECORDING BLAST MEASURES

1. Select the **Measures** field.



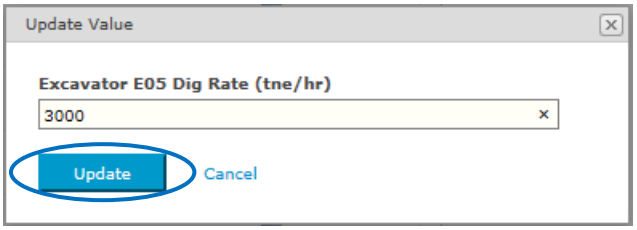
2. Measures has two fields available for editing:
   - Blast measures
   - Environmental measures

3. Select **Blast measures** or **Environmental measures**.

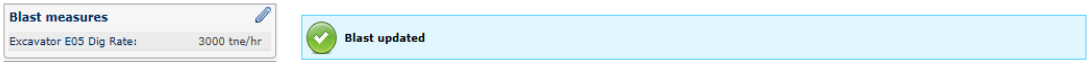


6.8.1 Blast measures

1. Enter values for any measures that have been set up for your site.
2. Select **Update**.

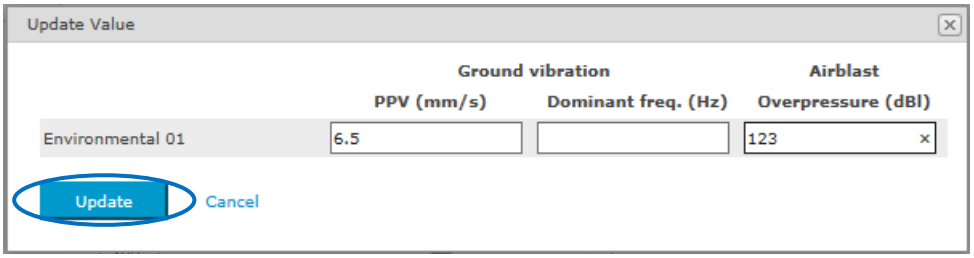


3. **Blast updated** message is received.

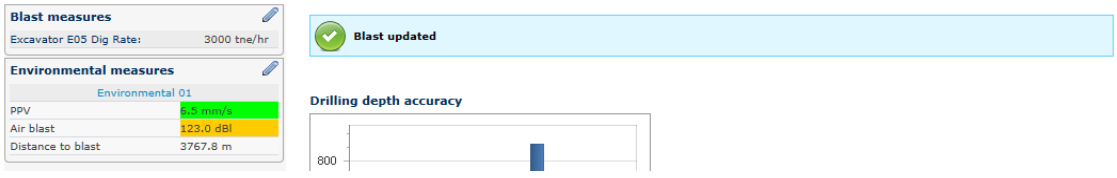


6.8.2 Environmental measures

1. Enter values for environmental measurement.
2. Select **Update**.



3. The environmental data values are uploaded to the site.

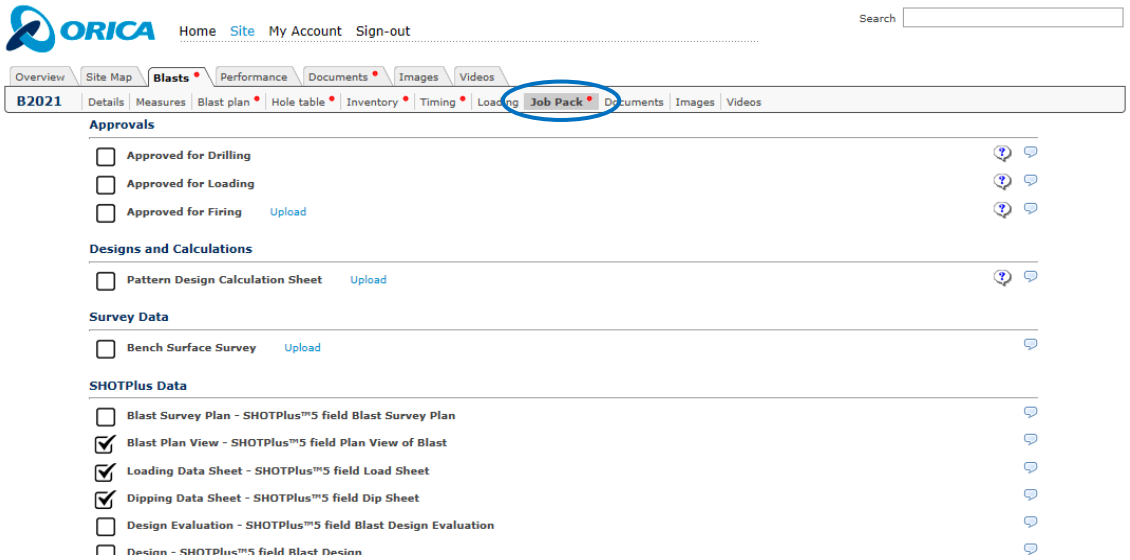


4. Scroll down to view the **Environmental measures** in graphical form.
5. You will notice with **Environmental measures**, the colouring matches the site Point Of Interest (POI) alert and compliance thresholds, which are set by the Site Manager.

6.9 COMPLETING THE JOB PACK

The Job Pack consists of tasks, approvals and documents that are recorded during the blasting process.

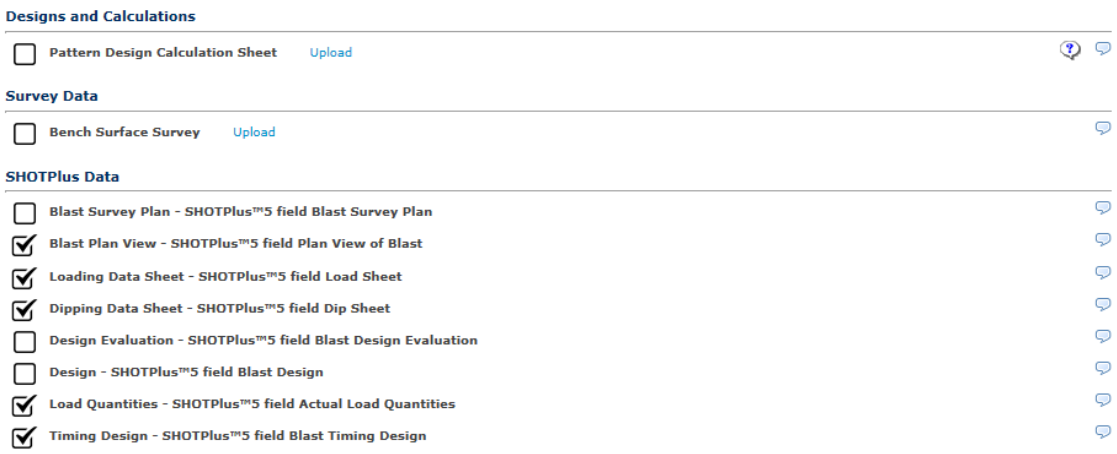
1. Select the **Job Pack** field.



Any Job Pack fields that are linked to SHOTPlus data will automatically have a tick placed in the Process Completed box when a SHOTPlus file that contains that information is uploaded to the blast.

In this example, the following processes have been completed:

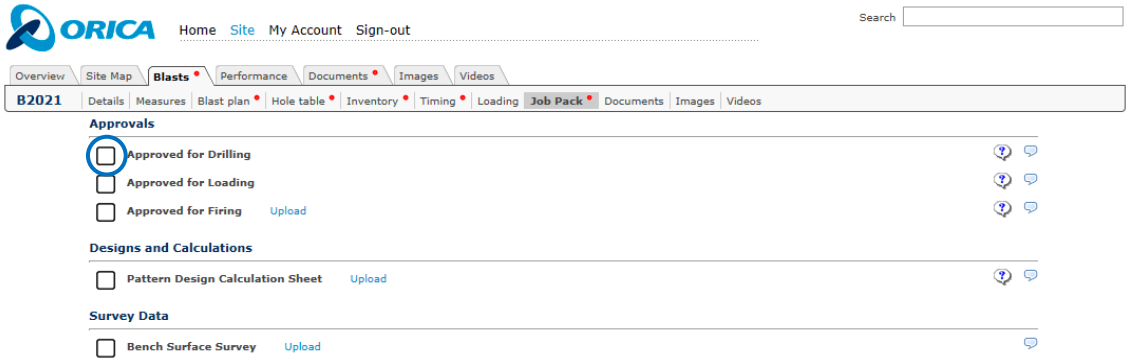
- ☑ Blast Plan View – SHOTPlus 5 field Plan View of Blast
- ☑ Loading Data Sheet – SHOTPlus 5 field Load Sheet
- ☑ Dipping Data Sheet – SHOTPlus 5 field Dip Sheet
- ☑ Load Quantities – SHOTPlus 5 field Actual Load Quantities
- ☑ Timing Design – SHOTPlus 5 field Blast Timing Design



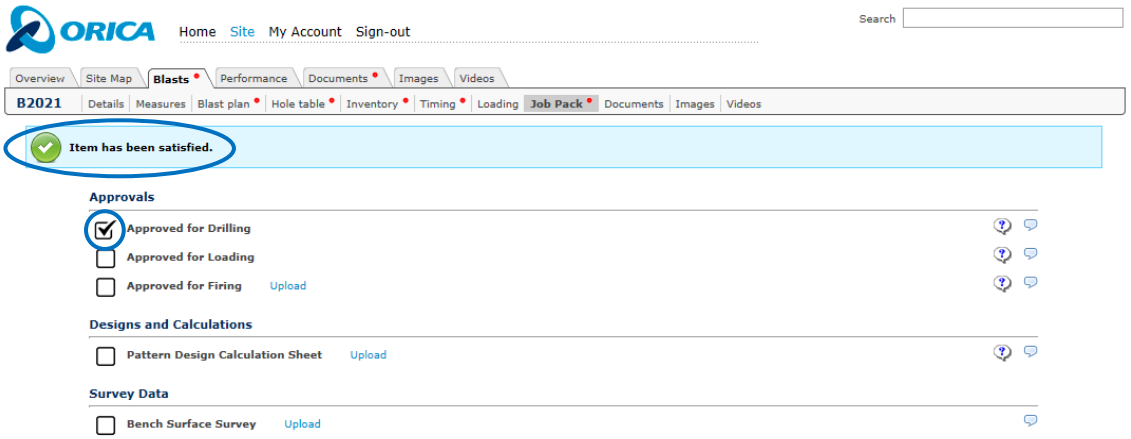
6.9.1 Marking Items as Complete

To mark an item as complete:

1. Select the appropriate empty box (for example: **Approved for Drilling**).



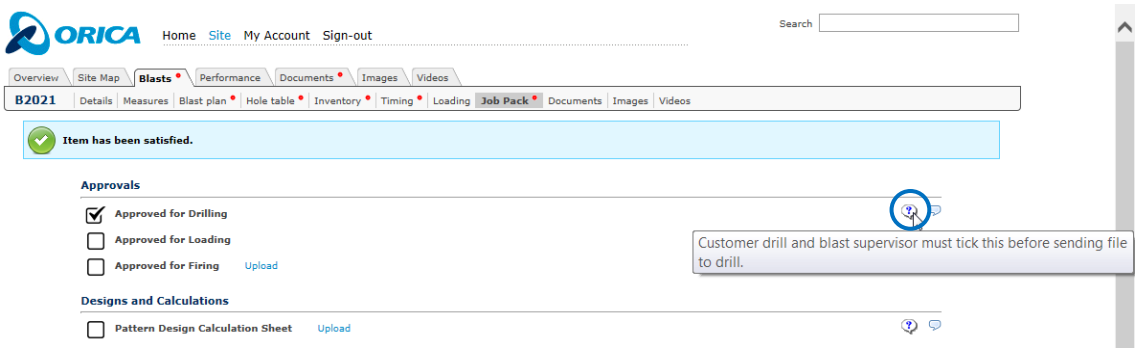
2. A tick is placed in the box and an '**Item has been satisfied**' message is received.



On the right hand side of the page, any items that have descriptions available will display a question mark bubble.

3. Hover the mouse cursor over the question mark bubble.

   The description of the field will appear.

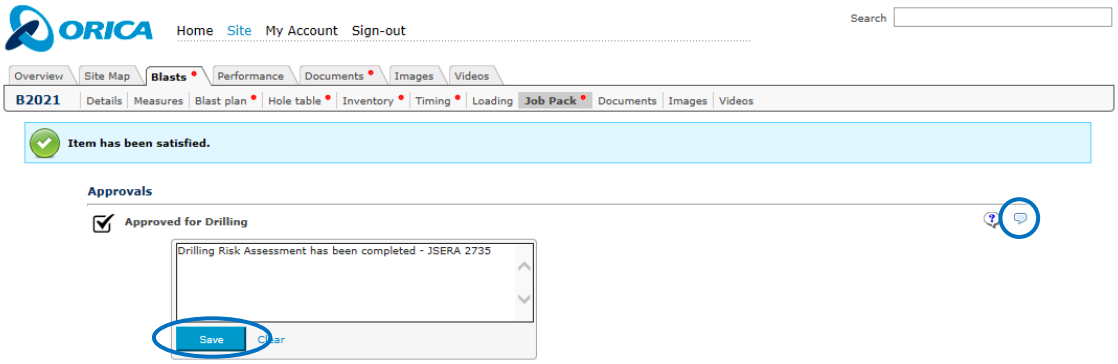


6.9.2 Adding Comments to Job Pack Fields

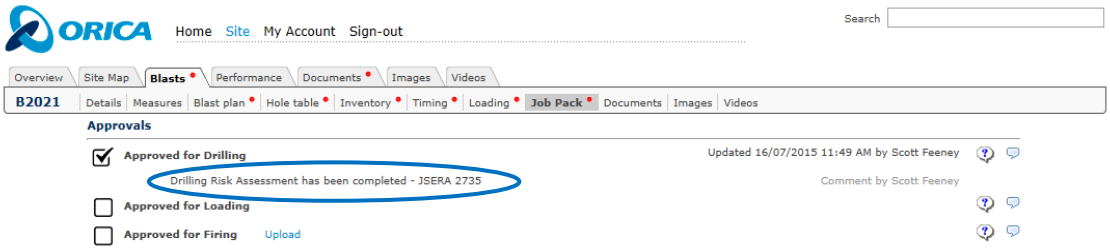
To add a comment to a Job Pack field:

1. Select the blue add comment button on the right of screen.
2. Enter comment.
3. Select Save.

NOTICE **Only one comment can be saved per field.**



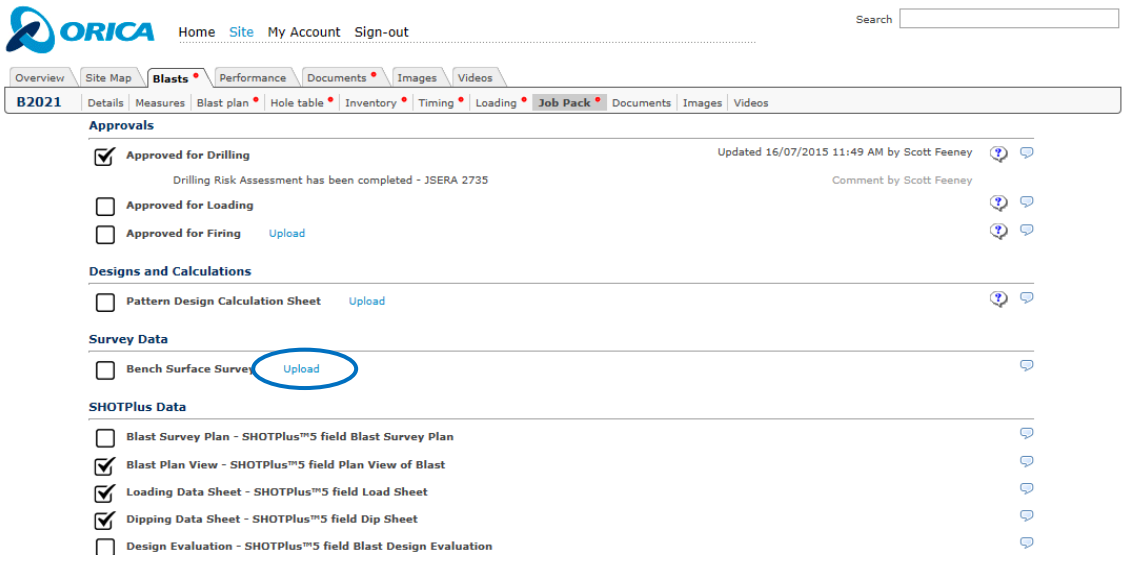
4. Comment appears under the field.



6.9.3 Job Pack File Uploads

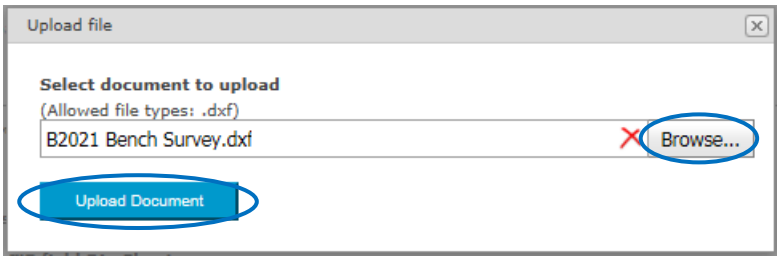
Some items are configured to allow file uploads. A blue **Upload** link appears next to these items.

1. Select **Upload**.



You will be prompted to upload the file.

2. Browse to the file's location.
3. Select **Upload Document**.



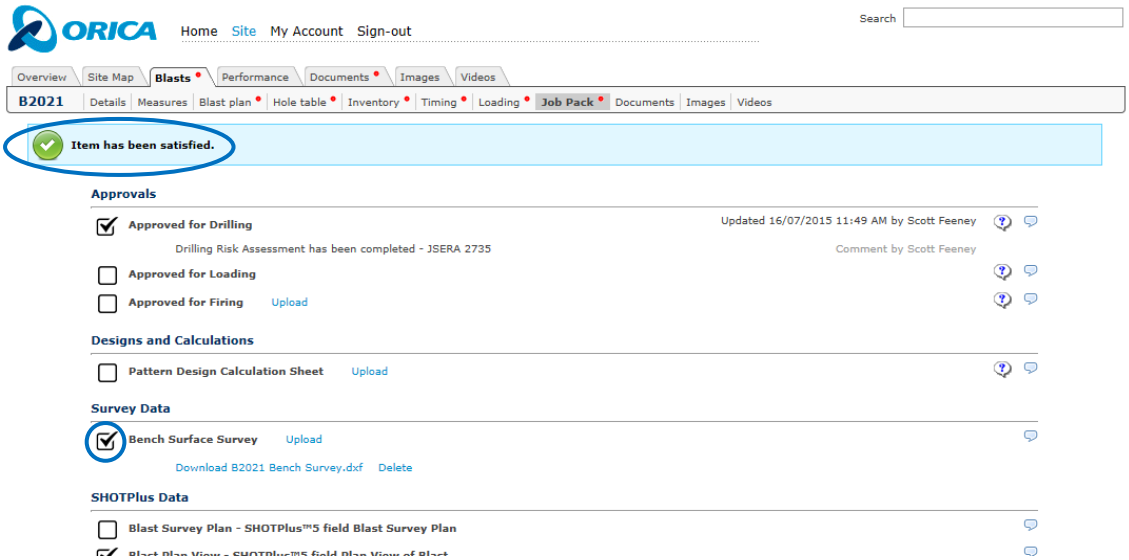
The file uploads and appears in the relevant area.

NOTICE

There is no tick in the box.

Uploading a file doesn't automatically update the item as complete. This allows you to manage draft versions.

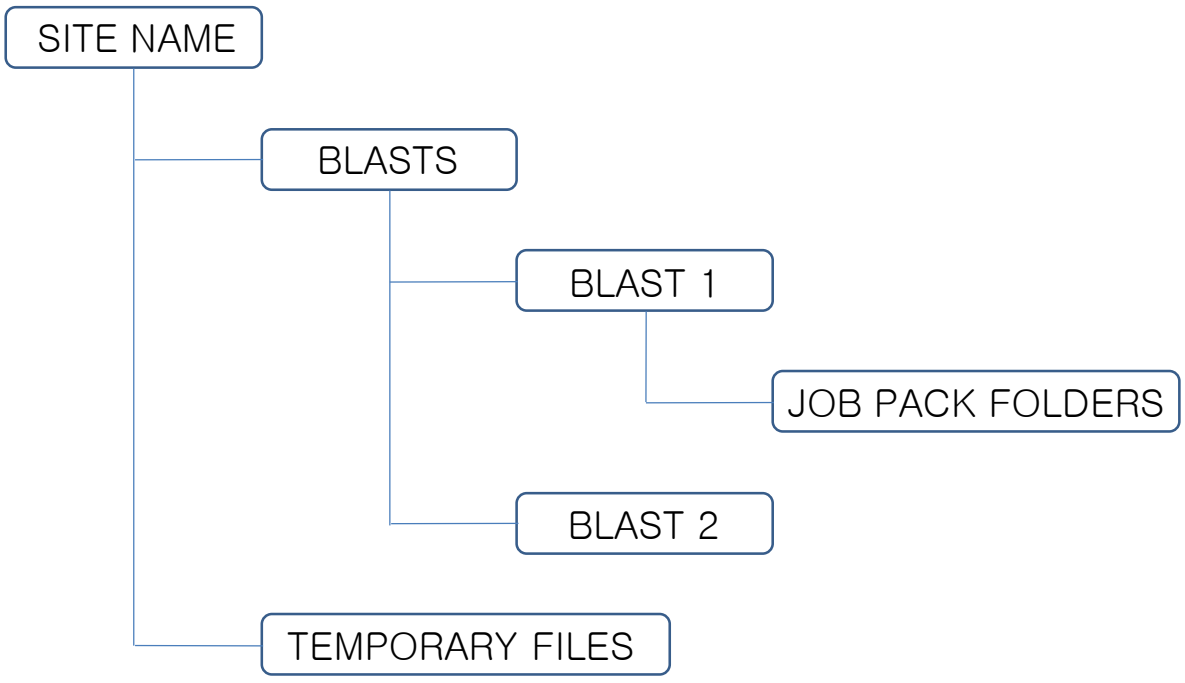
4. Select the empty box (**Bench Surface Survey** in this example).
5. A tick is placed in the box and an '**Item has been satisfied**' message is received.



6.10 USING THE DOCUMENTS MANAGER

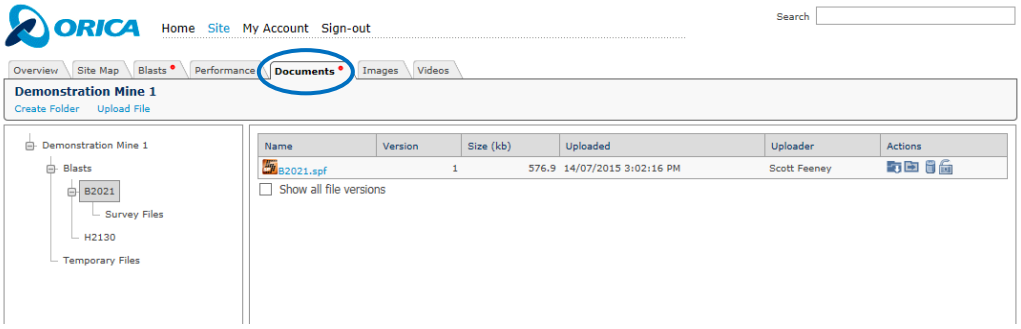
The Documents Manager works much like a file system: it has folders and files within those folders.

The top folder is always the Site Name. Under the Site Name there is always a folder for Blasts. The Blasts folder contains a separate folder for each blast.



To access the Documents Manager:

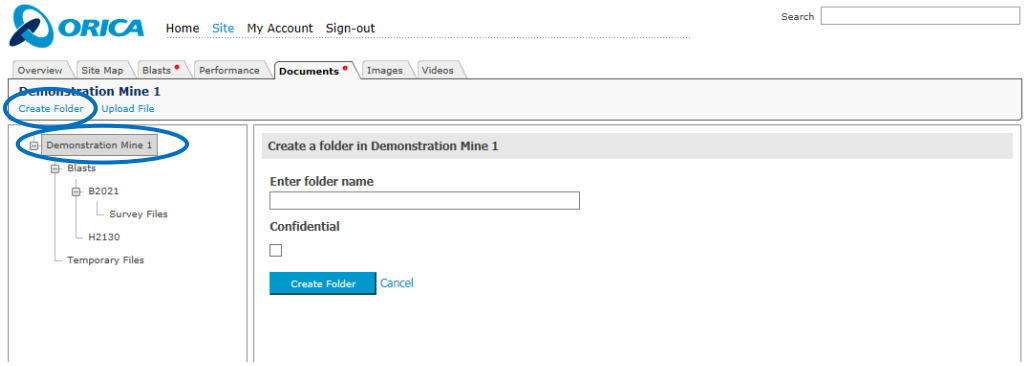
1. Select the **Documents** tab.



6.10.1 New Folder Creation

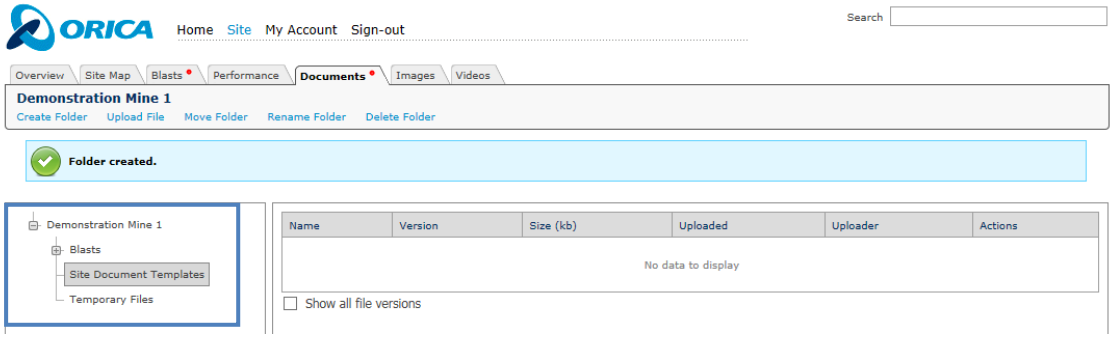
At the site level you can create folders to store files relating to blasting on site, such as templates, risk assessments, information, etc.

1. Ensure **Site Name** level is selected.
2. Select **Create Folder** (from under Site Name).



3. Enter the new folder name.
4. Select **Create Folder**.

The new folder appears under the Site Name.

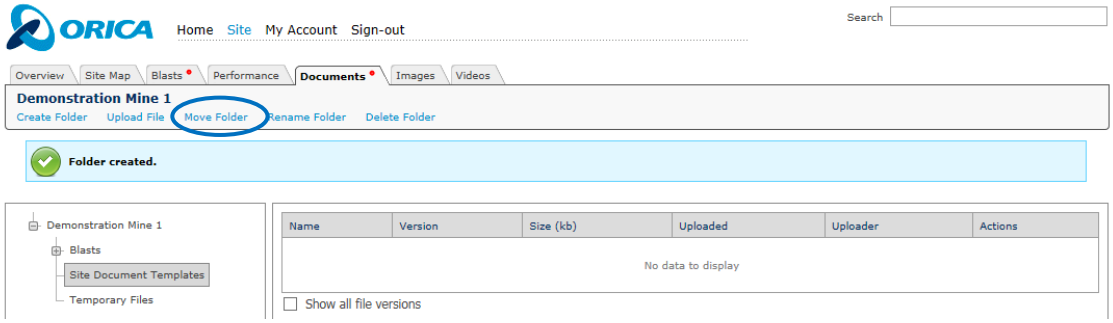


6.10.2 Folder Relocation

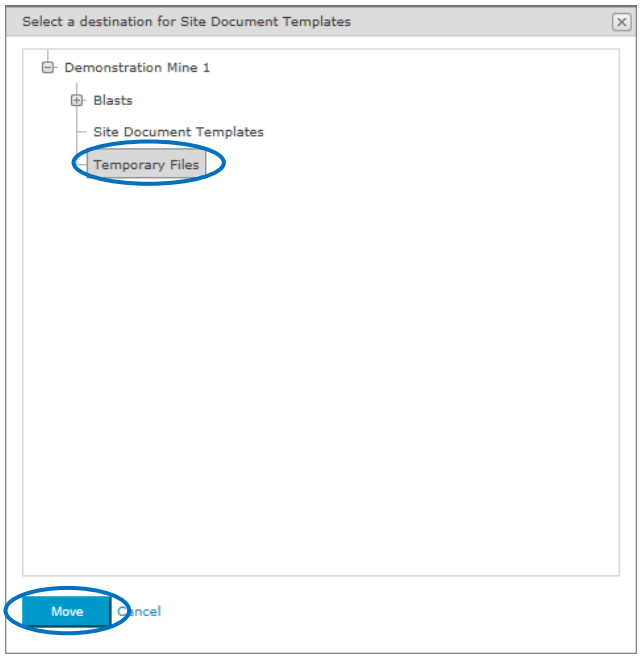
You have the option to move the folder to a different location within the file tree.

To move a folder:

1. Select **Move Folder**.



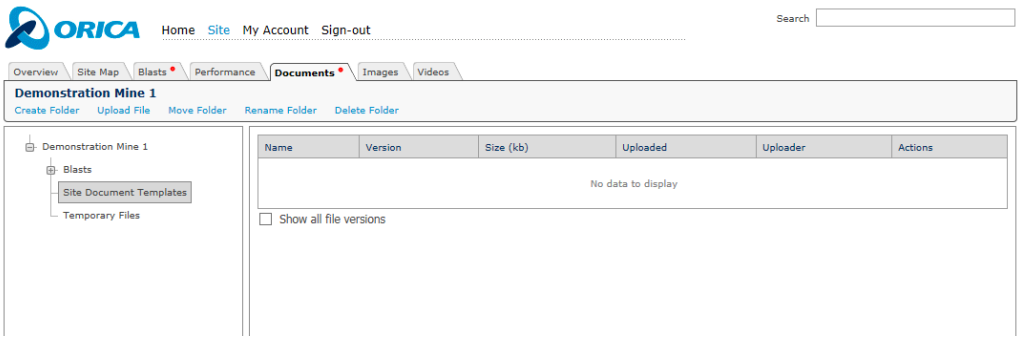
2. Select the new location folder.
3. Select **Move**.



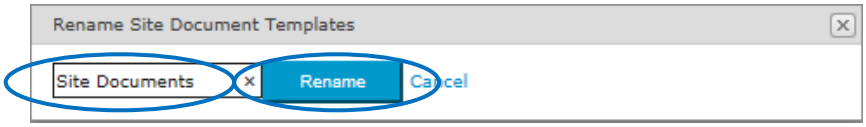
6.10.3 Rename Folder

The Documents Manager gives the ability to rename folders. To rename a folder:

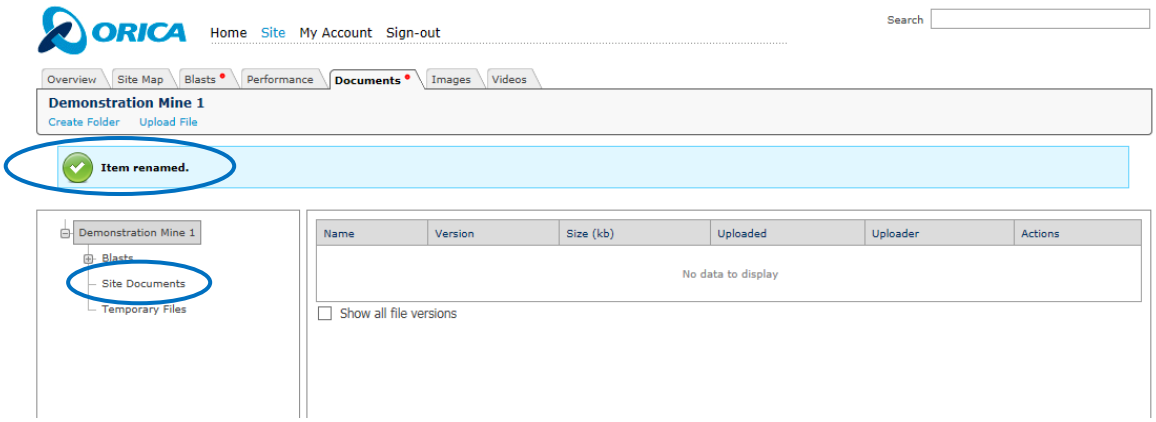
1. Select the folder.
2. Select **Rename Folder**.



3. Enter the new folder name.
4. Select **Rename**.



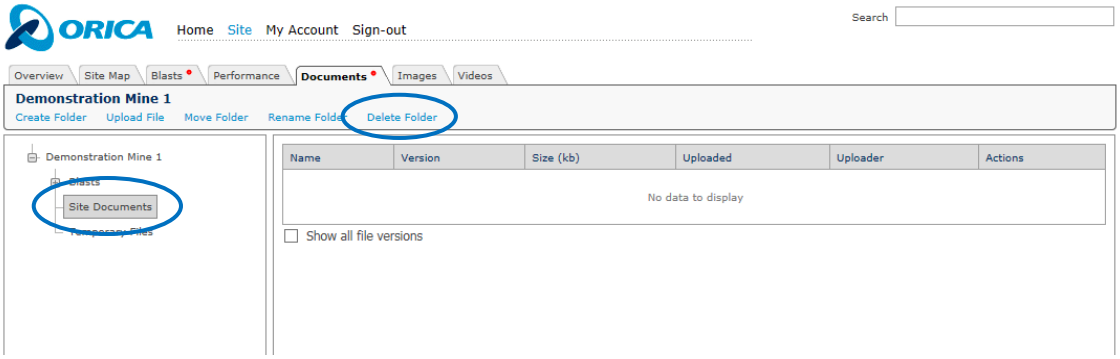
The folder has now been renamed (**Site Documents**) and the '**Item renamed**' message has been received.



6.10.4 Folder Deletion

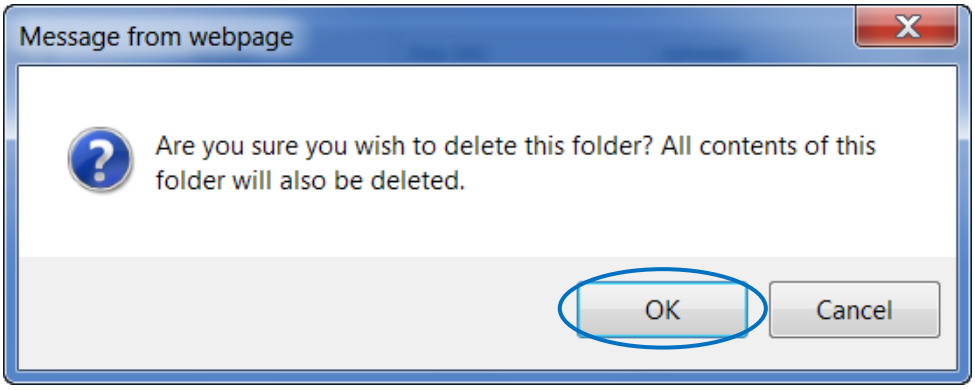
The Documents Manager gives the ability to delete folders. To delete a folder:

1. Select the folder.
2. Select **Delete Folder**.

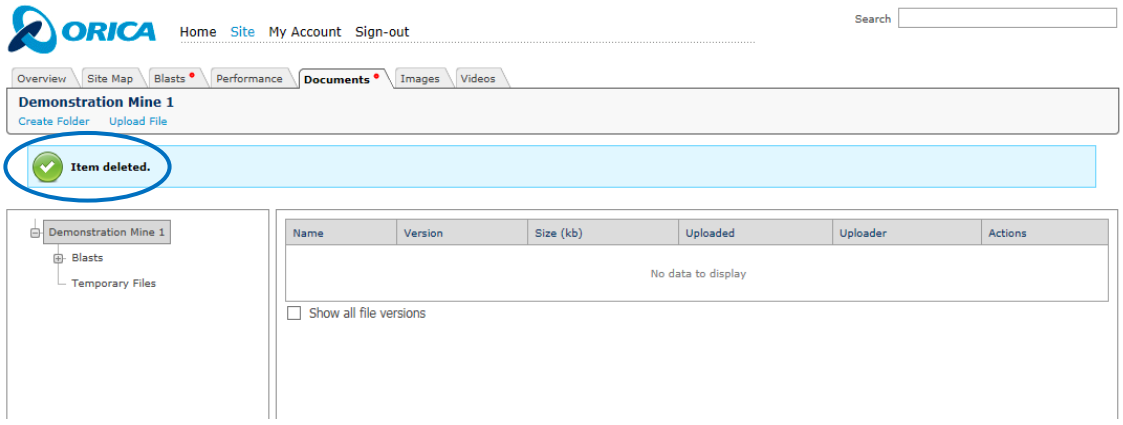


A warning message is received.

3. Select **OK**.



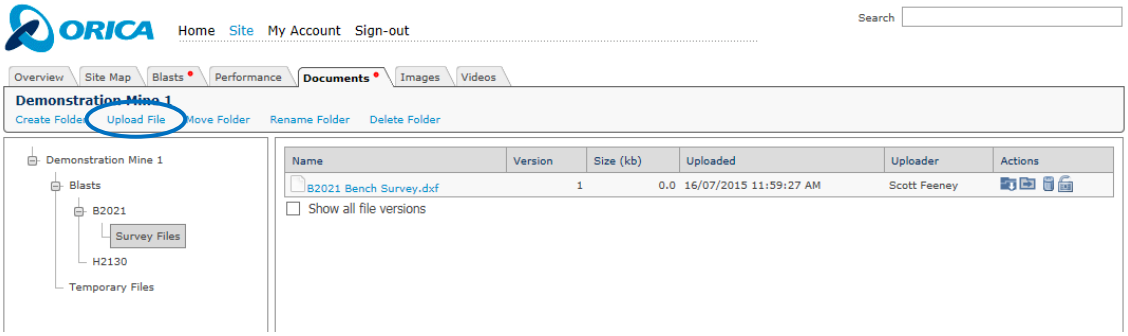
The folder has been removed (**Site Documents**) and the '**Item deleted**' message has been received.



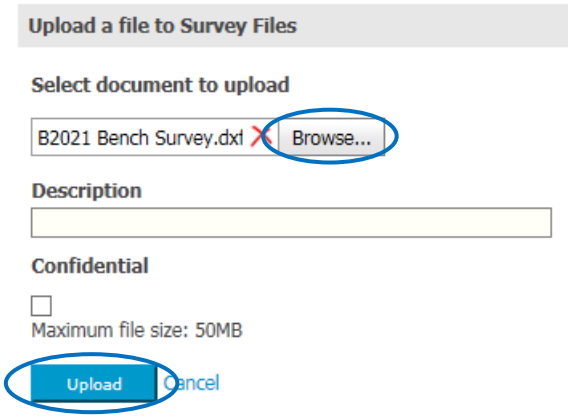
6.10.5 Uploading a File using Documents Manager

To upload a file using the Documents Manager:

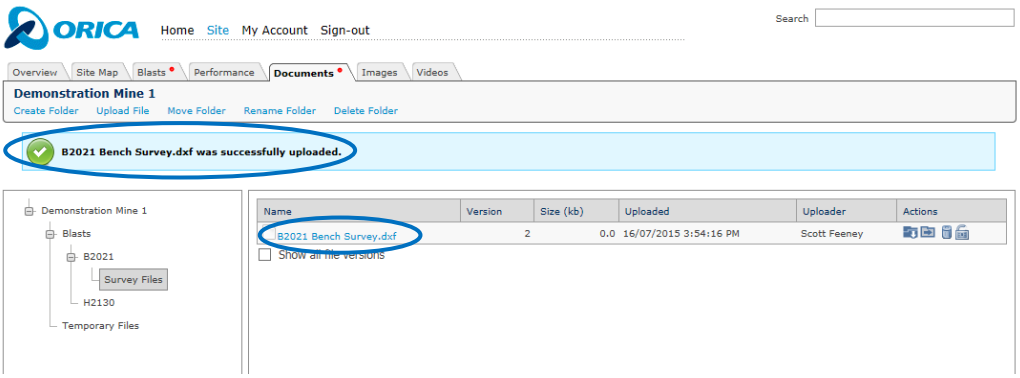
1. Select **Upload File**.



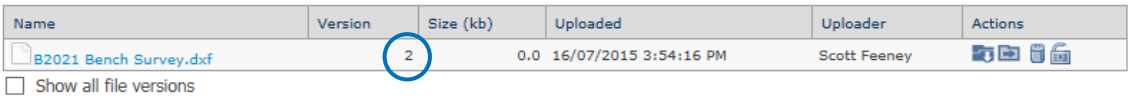
2. Select **Browse** and locate the file to upload.
3. Add file description (optional).
4. Select **Upload**.



The file (**B2021 Bench Survey.dxf**) has been uploaded and the '**…was successfully uploaded.**' message has been received.

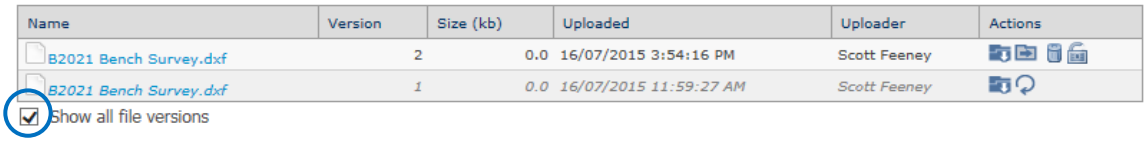


When a file is uploaded with the same name as a file already present in the folder, the system will recognise this and save the new file with an automatically incremented version number. All versions of the file are retained by the system.

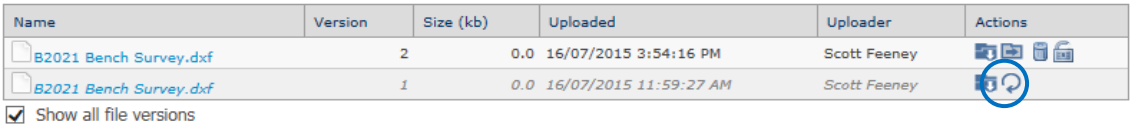


To view all versions of the file/s:

1. Select **Show all file versions** (by placing a tick in the box).



When viewing 'all versions', you can use the circle arrow to revert back to that version of the file.



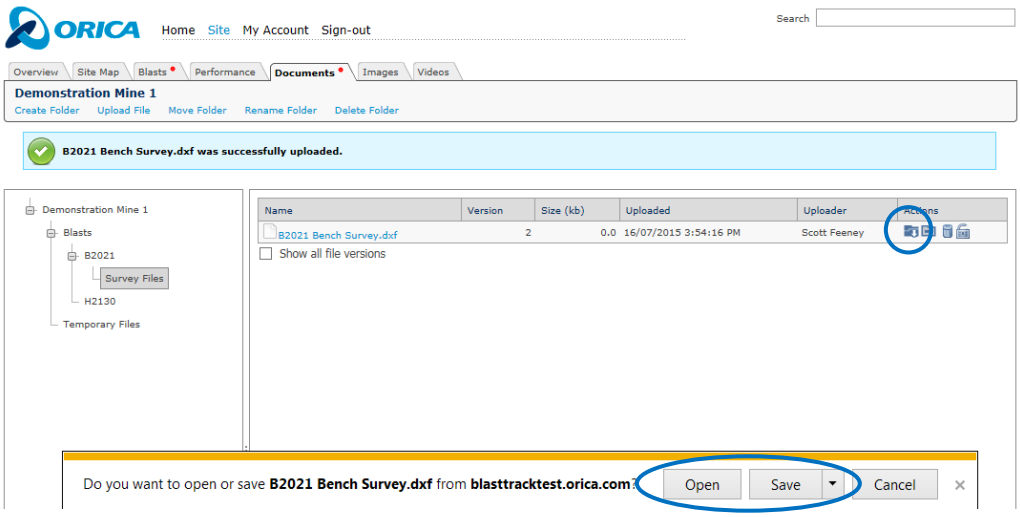
Each document has a number of actions that can performed using the Documents Manager:

- Download a File
- Move a File
- Delete a File
- Make a File Confidential

6.10.6 Download a File using Documents Manager

To download a file using Documents Manager:

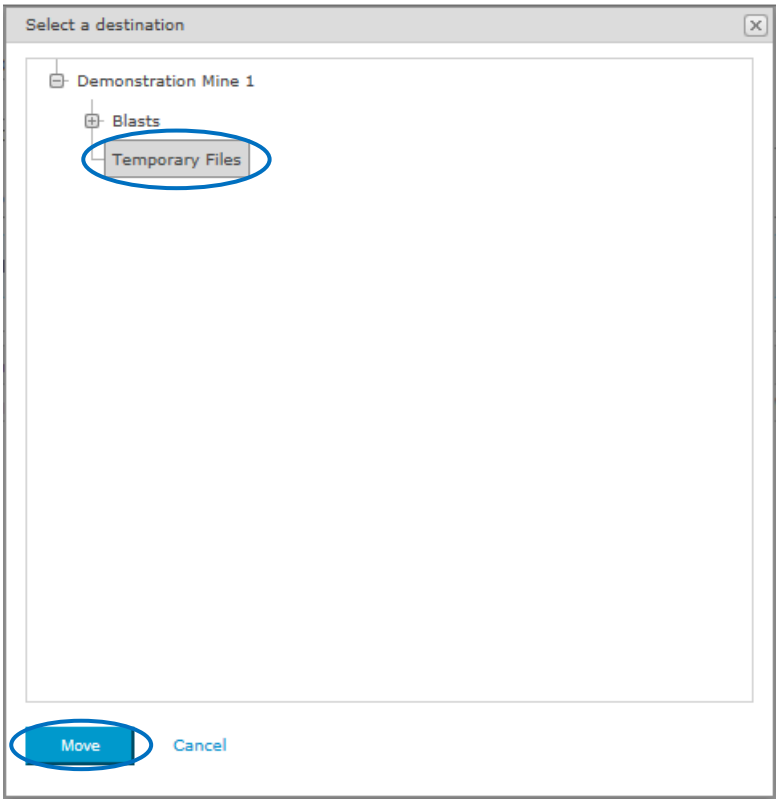
1. Select the **Download** icon ( ).
2. Select **Open** or **Save**.



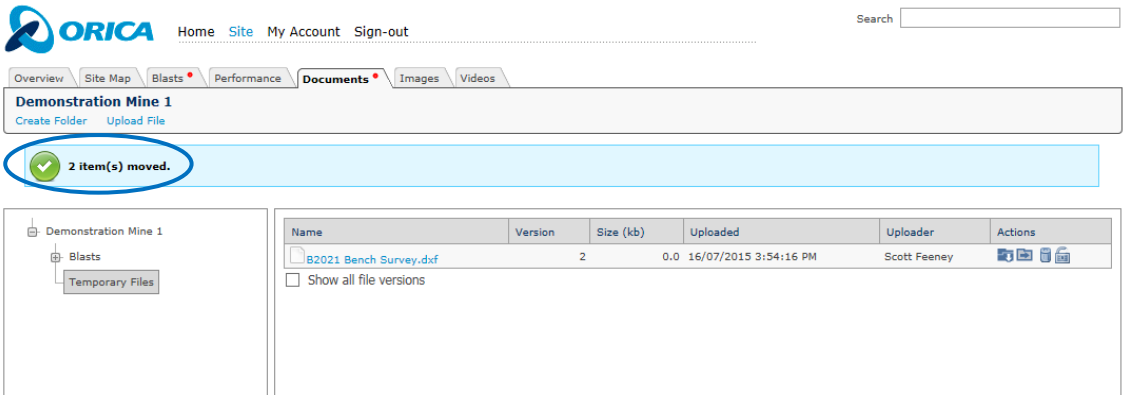
6.10.7 Move a File using Documents Manager

To move a file using Documents Manager:

1. Select the **Move** icon ( ).
2. Select the new location folder.
3. Select **Move**.



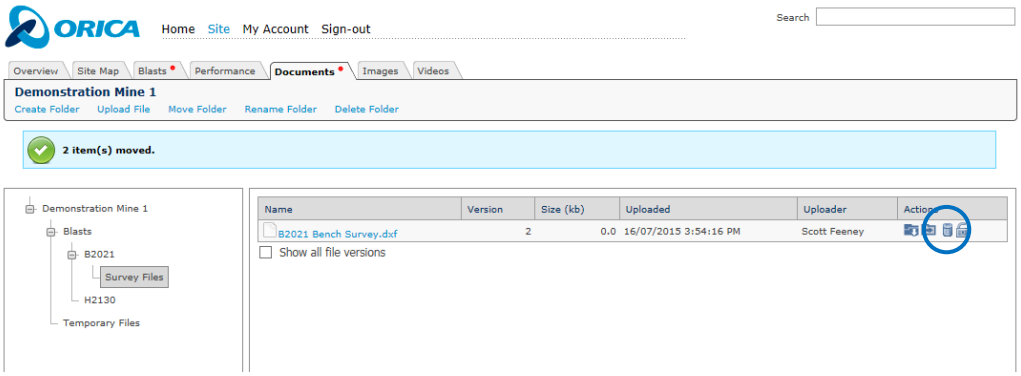
All versions of the file are moved.



6.10.8 Delete a File using Documents Manager

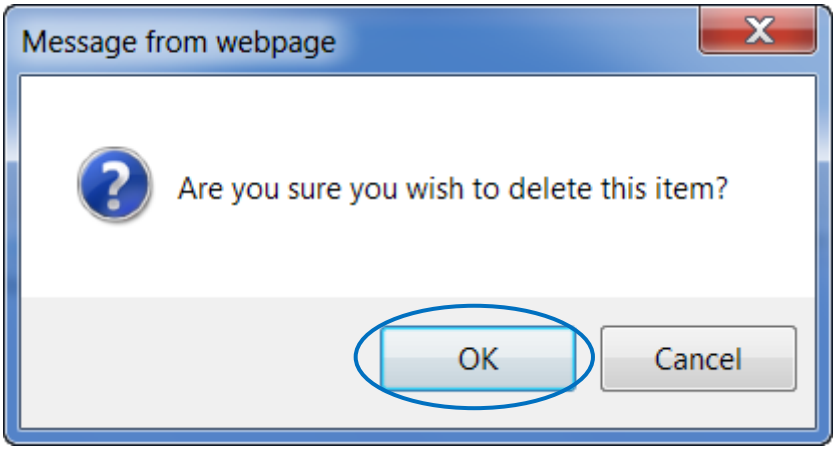
To delete a file using Documents Manager:

1. Select the **Delete** icon ( ).

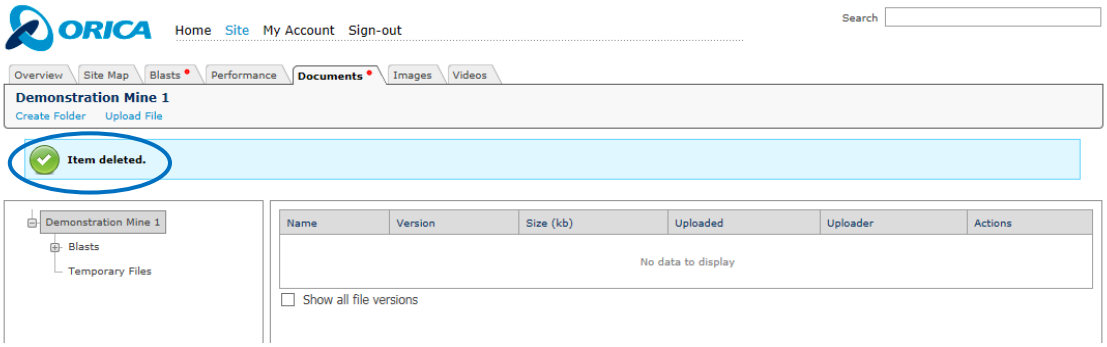


A warning message is shown.

2. Select **OK**.



The file has been deleted (**B2021 Bench Survey.dxf**) and the '**Item deleted**' message has been received.



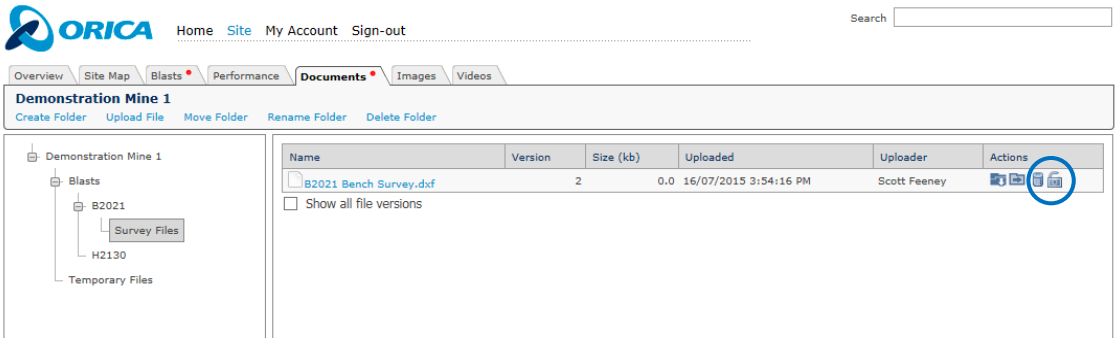
NOTICE

If a file has been deleted by mistake, or you believe a file has been deleted in error by other parties, you can contact BlastIQ Support and request the file be undeleted.

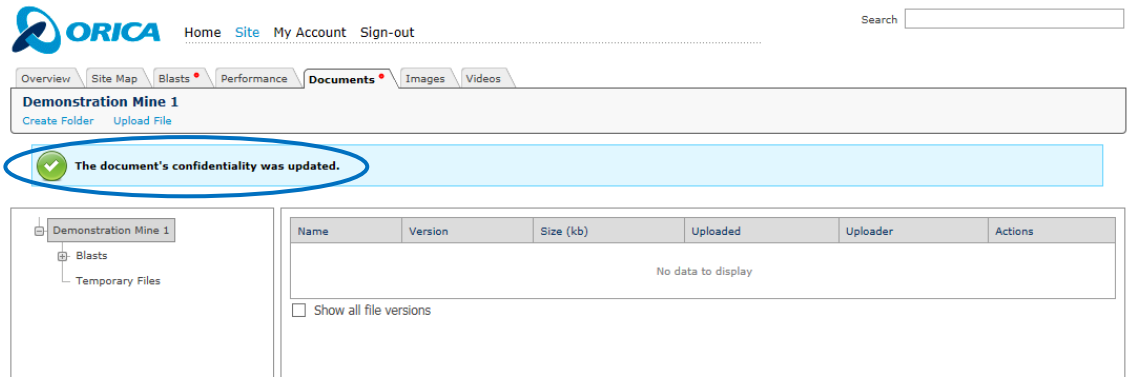
6.10.9 Make a File Confidential using Documents Manager

To make a file confidential a file using Documents Manager:

1. Select the **Make confidential** icon ( ).



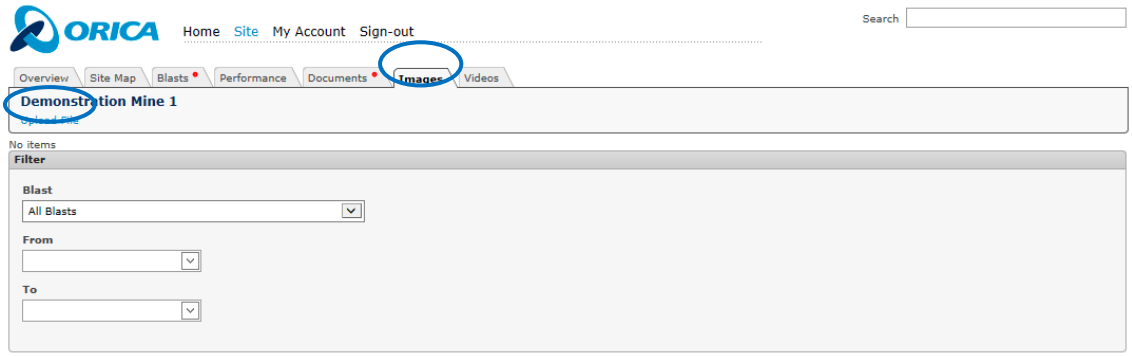
'**The document's confidentiality was updated.**' message is received.



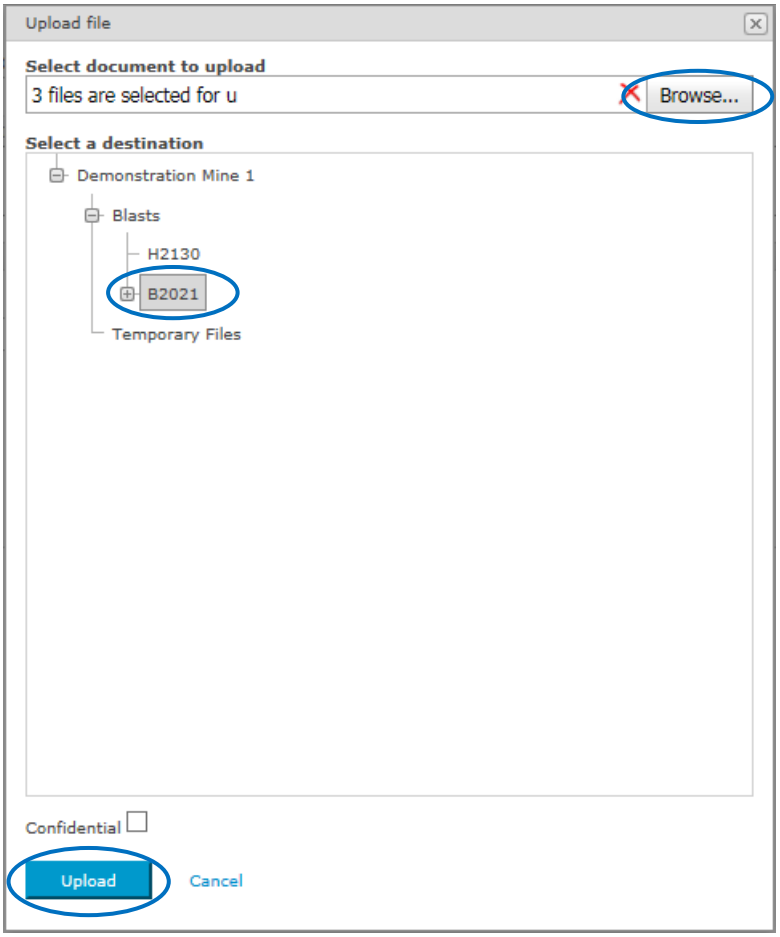
6.11 USING THE IMAGES LIBRARY

Any image file that is uploaded to the **Job Pack** or to the **Documents Manager** will automatically be detected and a thumbnail will appear in the **Images Library**. In addition, the **Images** page has the option to upload an image file.

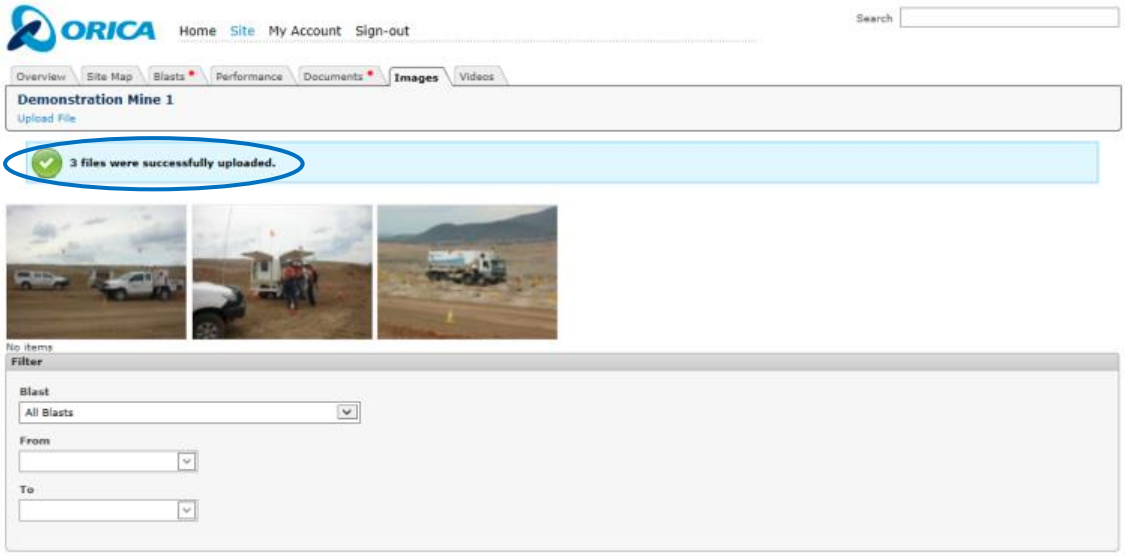
1. Select the **Images** tab.
2. Select **Upload File**.



3. Browse for the image file/s. Multiple images may be selected and uploaded together.
4. Select the destination folder.
5. Select **Upload.**



6. The image files appear and the '**…files were successfully uploaded.**' message is received.



6.12 USING THE VIDEOS LIBRARY

Any compatible video file that is uploaded to the **Job Pack** or to the **Documents Manager** will automatically be detected and a thumbnail will appear in the **Videos** library.

Compatible video file types are:

.avi

.mp4

.mpeg

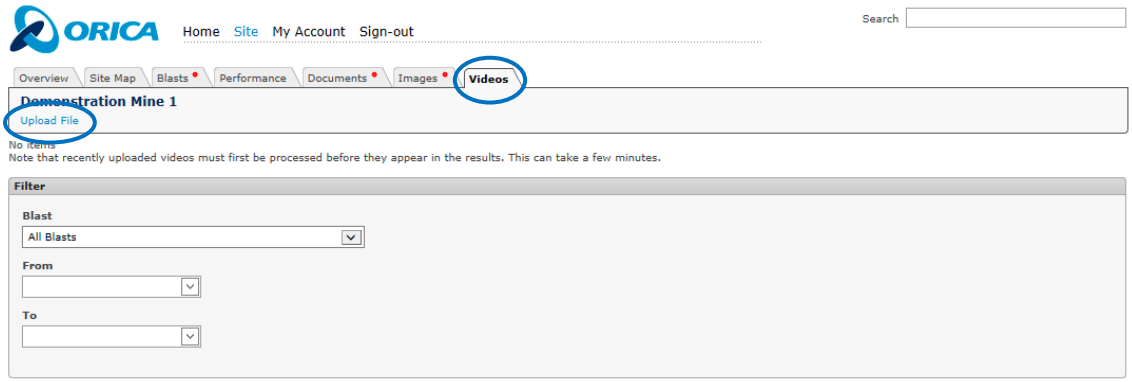
.mpg

.wmv

Be aware that some of the above file types may not be compatible, depending upon the codec used. If this happens, the video will still upload and can be downloaded from the system, but will not be able to be played online. This is designated by an exclamation icon appearing instead of a thumbnail representing the file.

In addition, the **Videos** page has the option to upload a video file.

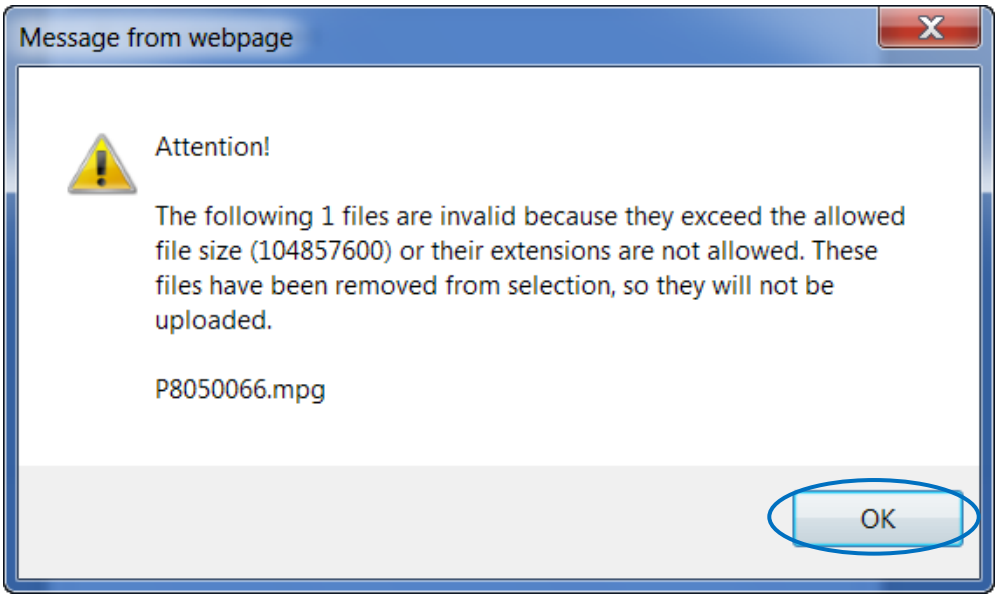
1. Select the **Videos** tab.
2. Select upload file.



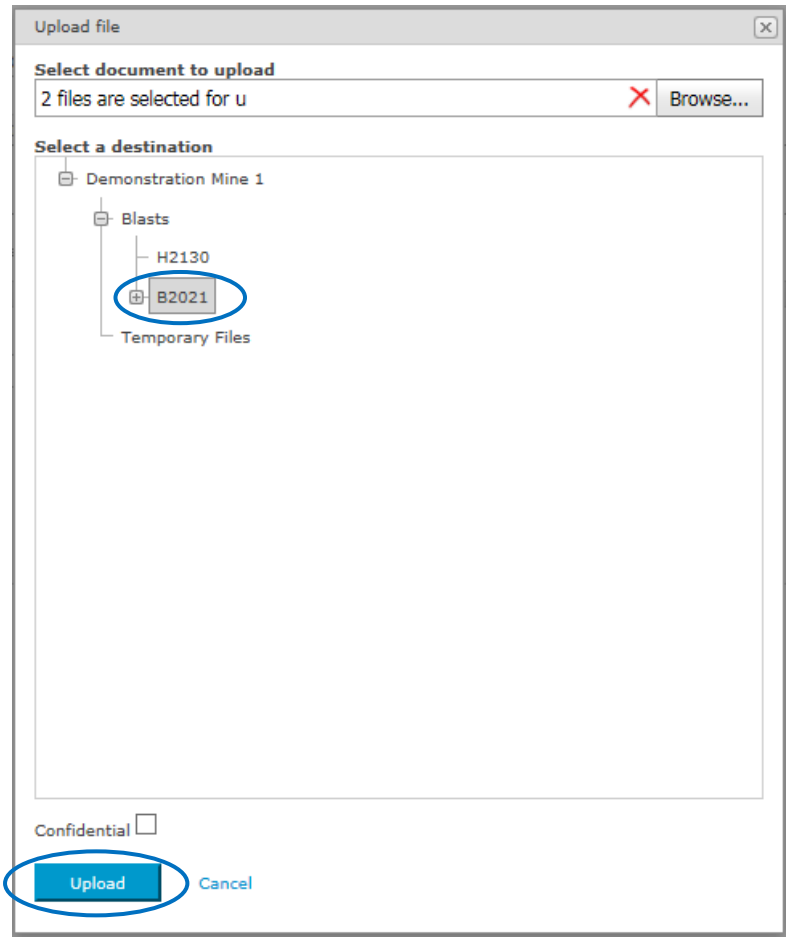
3. Browse for the video file/s. Multiple videos may be selected and uploaded together.

   If a video is of a non-compatible format or it exceeds the file size limit for the system, the following error message will be displayed:

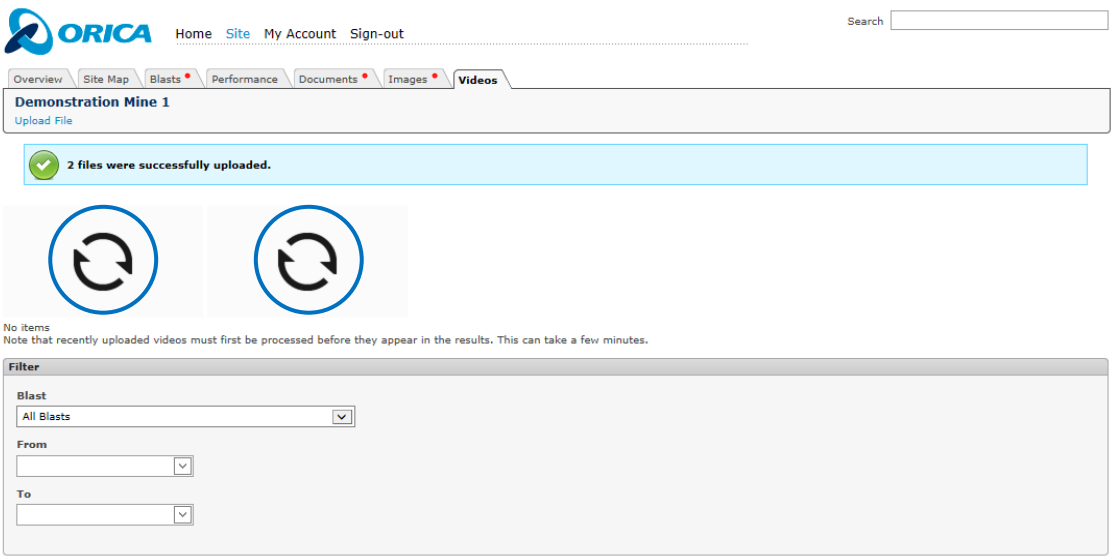
   Select **OK** to continue.



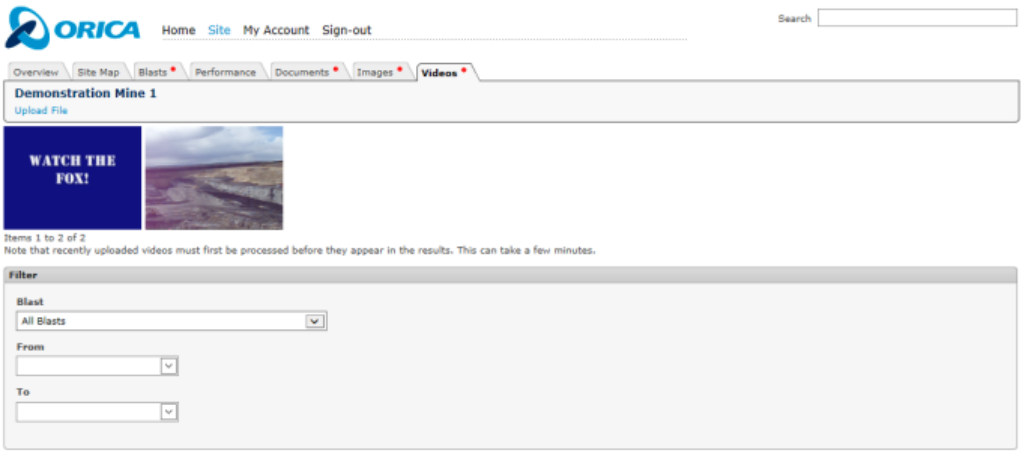
4. Select the destination folder.
5. Select **Upload**.



The video files appear as thumbnails; however processing the videos takes a number of minutes, during this time the processing icon/s will appear. At this time, videos are available for download, but are unable to be played online.



6. After several minutes, **refresh** the webpage and the thumbnail/s will appear.

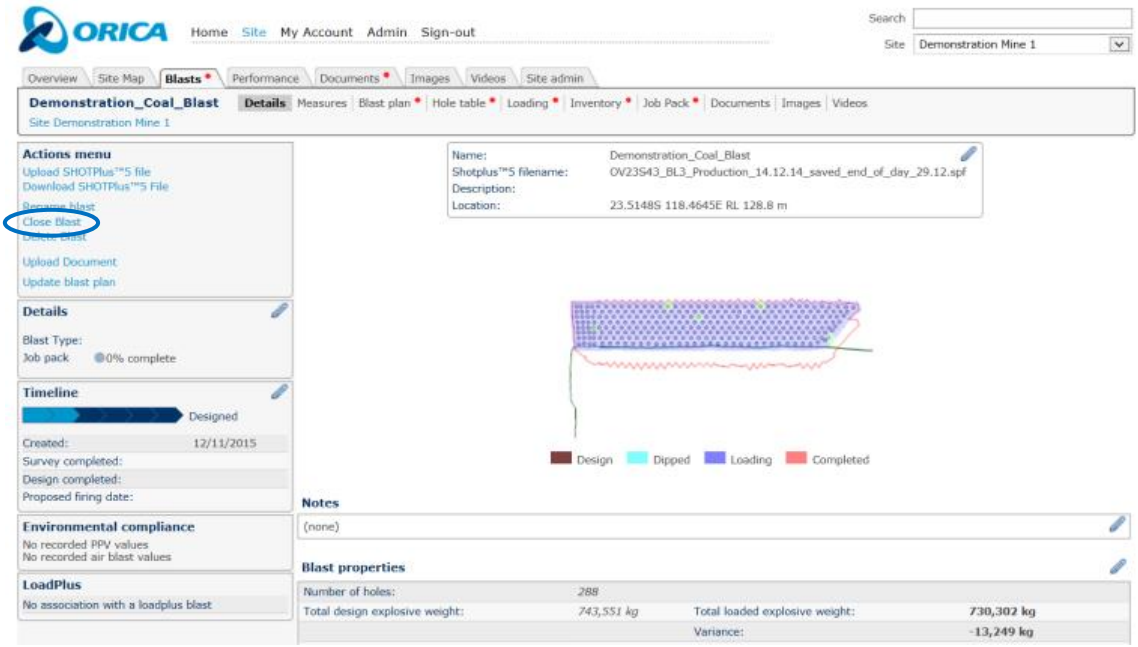


6.13 MARKING BLASTS AS CLOSED

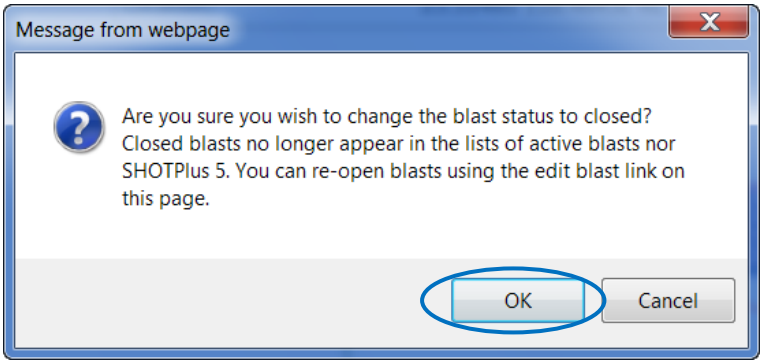
By default the blasts list in BlastIQ and SHOTPlus 5 displays all open blasts. To reduce clutter, it is advised to mark a blast as closed after all documentation is completed.

From the blast **Details** page:

1. Select **Close Blast** in the actions menu.

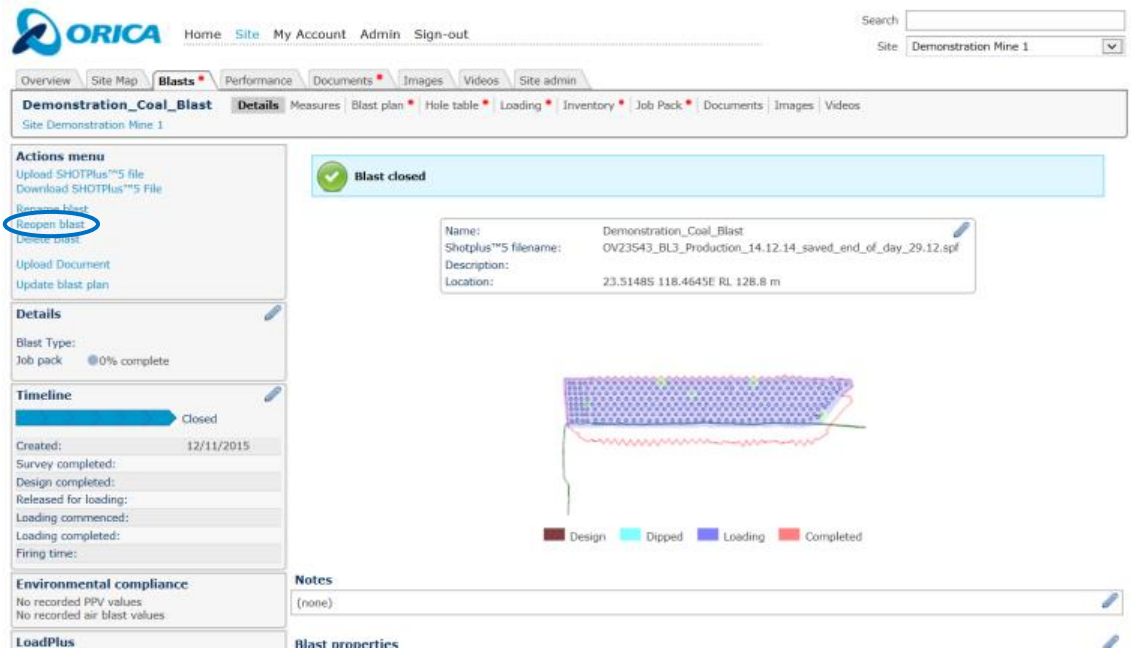


2. Select **OK**.



6.13.1 To Reopen a Blast once it has been Closed

1. Select **Reopen blast**.



7 USING BLASTIQ AS A SITE MANAGER

Section Revision:	**0**	**Revision Date:**	**August 2015**

7.1 OVERVIEW

Site Managers may view and edit the project definition and view and edit information in all project sites subject to the confidentially provisions.

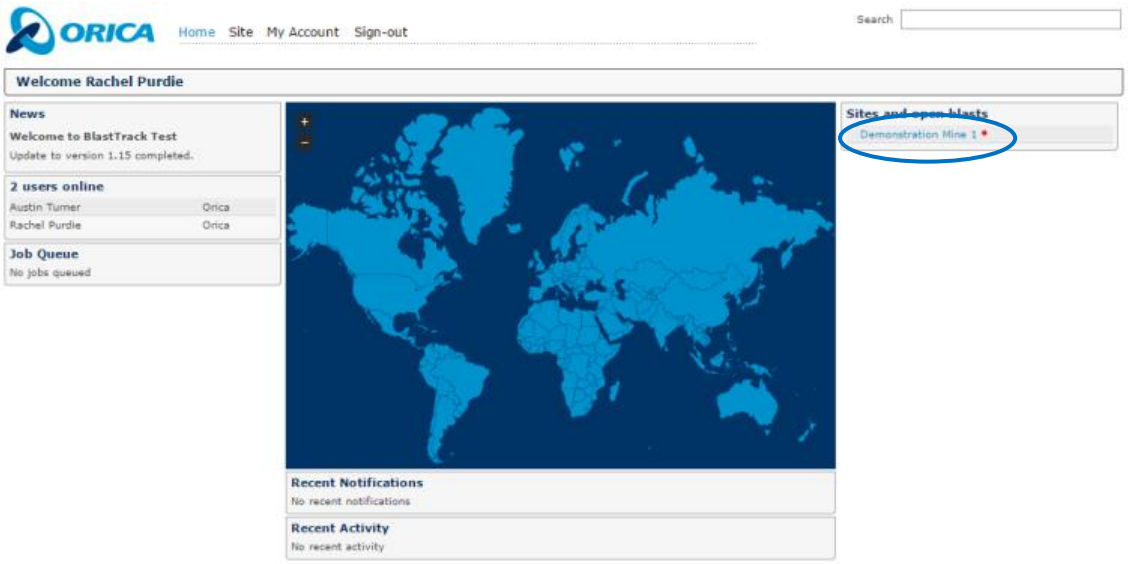
Site Managers are able to perform all tasks from:

- Section 4 USING BLASTIQ AS A VIEWER
- Section 5 USING BLASTIQ AS A CONTRIBUTOR
- Section 6 USING BLASTIQ AS AN EDITOR

Site Managers can set up and configure their site on BlastIQ with capabilities including:

- Adding site members
- Selecting the features available
- Creation of blast descriptors and blast measures
- Setting up a Job Pack template
- Configuring the site map

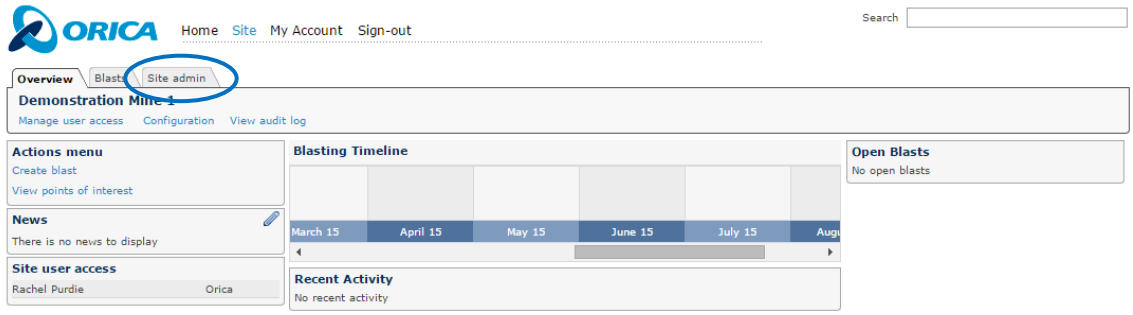
To begin setting up the site page, select the relevant site from the **Sites and open blasts** list.



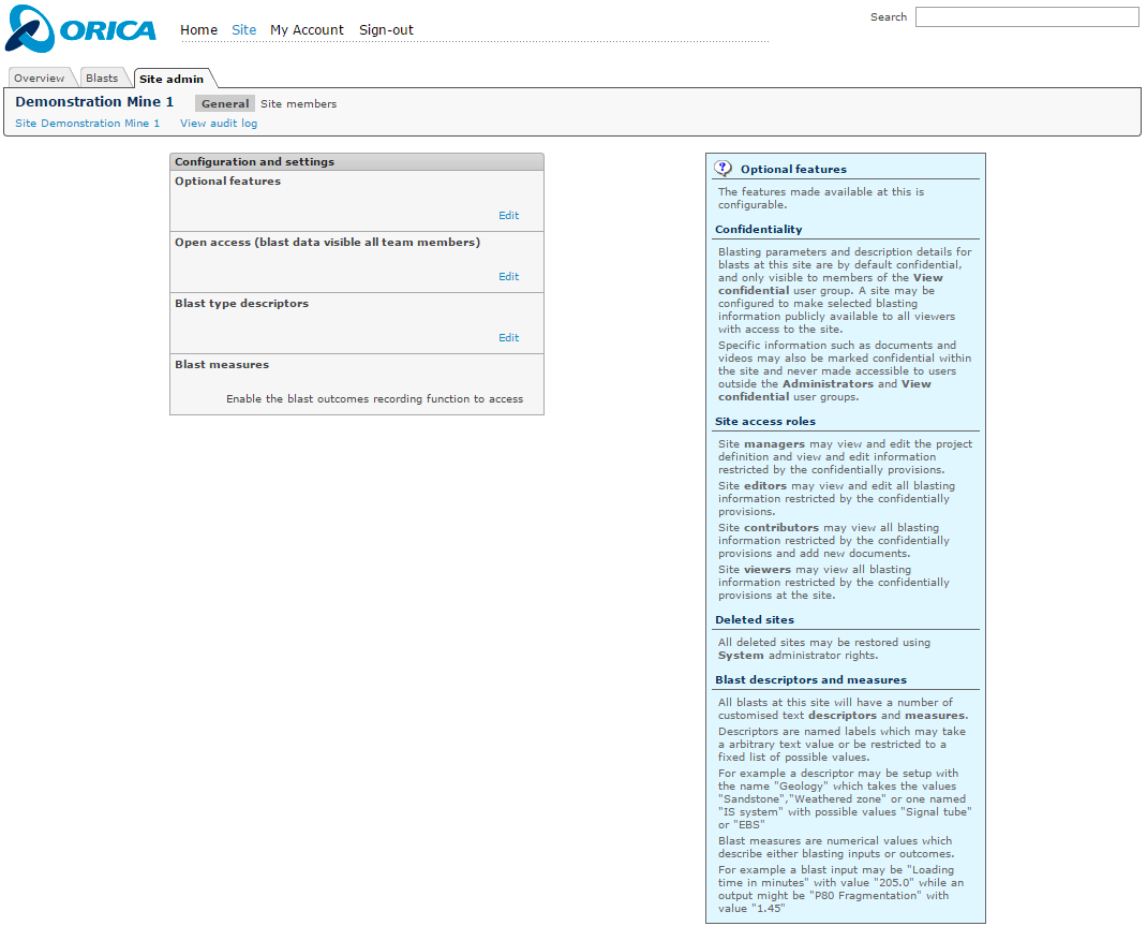
7.2 GENERAL SITE CONFIGURATION

The following describes how to add site members and setup optional features, access settings, blast descriptors and blast measures.

1. From the site overview page, click on the **Site Admin** tab.



All site configuration is performed on the **Site Admin** page.



Information relating to site configuration is given in the blue box and summarised below:

Confidentiality –

- Confidential items are only visible to members of the **View confidential** user group.
- Specific information may be configured to be publicly available to all site users.
- Specific information may be marked confidential within the site to restrict access to users outside the **Administrators** and **View confidential** user groups.

Site access roles –

- Site **managers**: view and edit project definition, and information restricted by the confidentially provisions.
- Site **editors**: view and edit all blasting information restricted by the confidentially provisions.
- Site **contributors**: view and edit all blasting information restricted by the confidentially provisions and add new documents
- Site **viewers**: view all blasting information restricted by the confidentially provisions at the site.

Deleted sites –

- All deleted sites may be restored using **System** administrator rights.

Blast Descriptors –

- Descriptors are named labels containing a text value
- For example a descriptor may be named “Geology” which takes the values “Sandstone”, “Weathered zone”

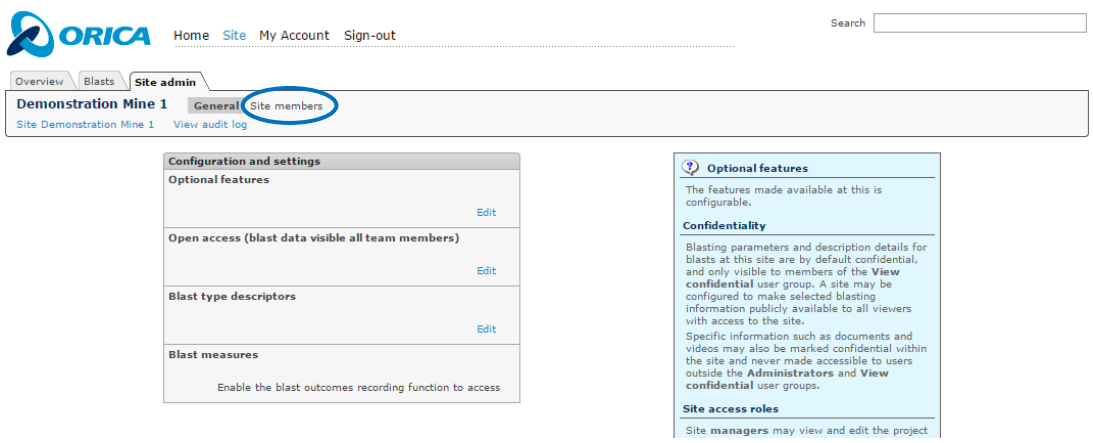
Blast Measures –

- Measures are numerical values which describe blasting inputs or outcomes
- For example a blast input may be “Loading time in minutes” with value “205.0”, or an output of “P80 Fragmentation” with a value of “1.45”

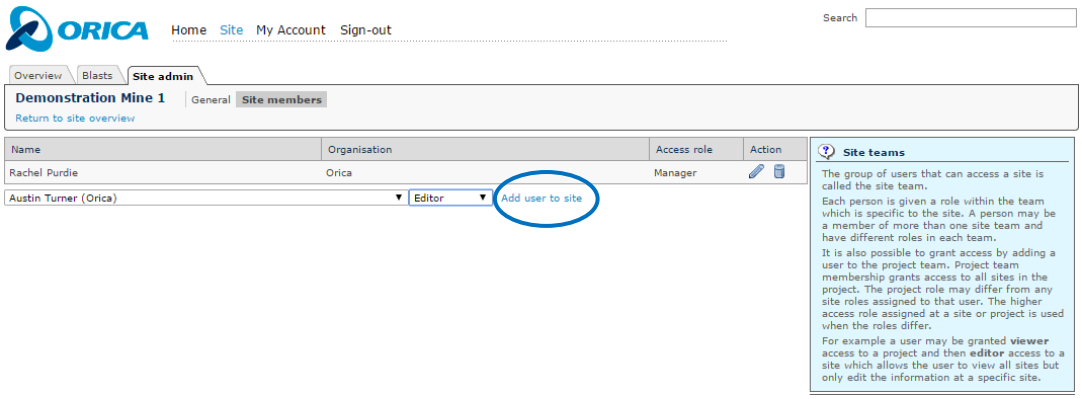
7.2.1 Adding Site Members

Configure the users that have access to the site and their level of access.

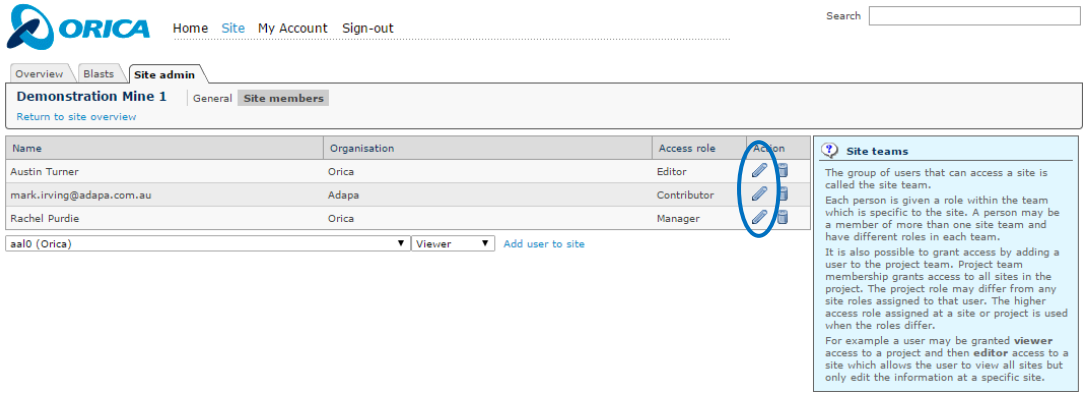
1. Click on **Site members** from the site overview page.



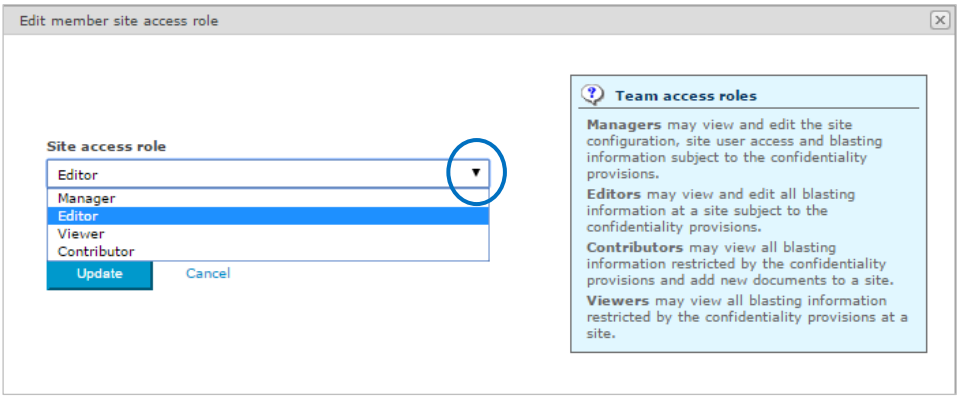
2. Select a user and user type from the drop down boxes.
3. Select **Add user to site.**



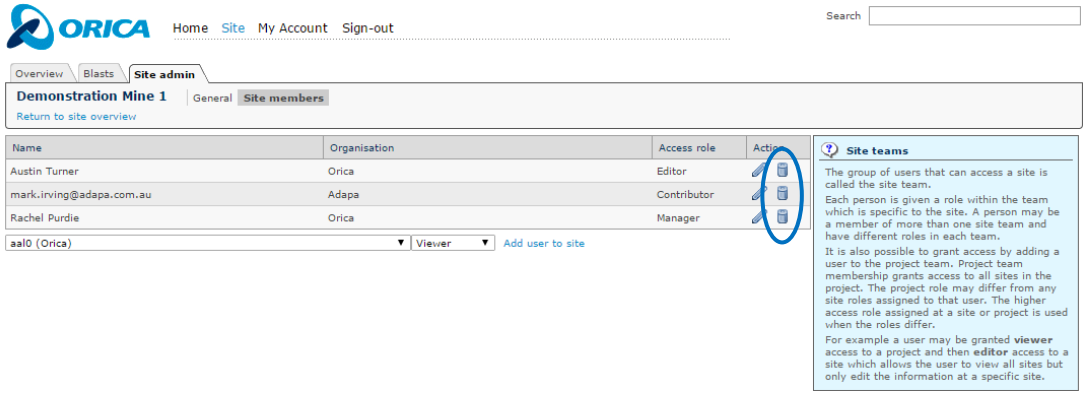
4. Edit a user's access level by clicking on the edit icon next to their name.



5. Reassign a user's access by selecting a role from the drop down menu and then selecting **Update**.



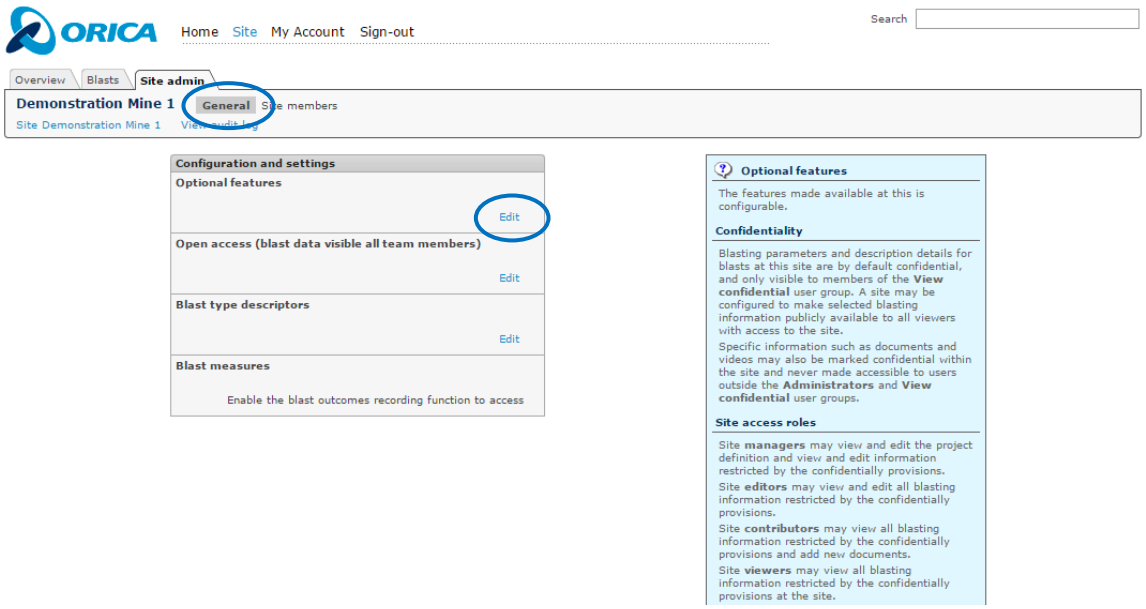
6. You may remove a user from a site using the remove icon next to their name. Note that the user is able to be added back in after this is performed and it does not remove their BlastIQ login.



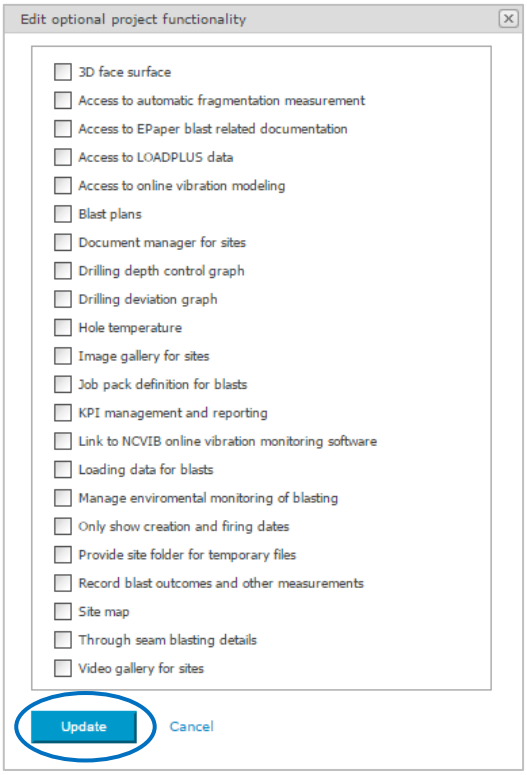
7.2.2 Optional Features

Under the **General** tab on the site admin page, features such as blast plans and site maps can be selected to appear on the site page.

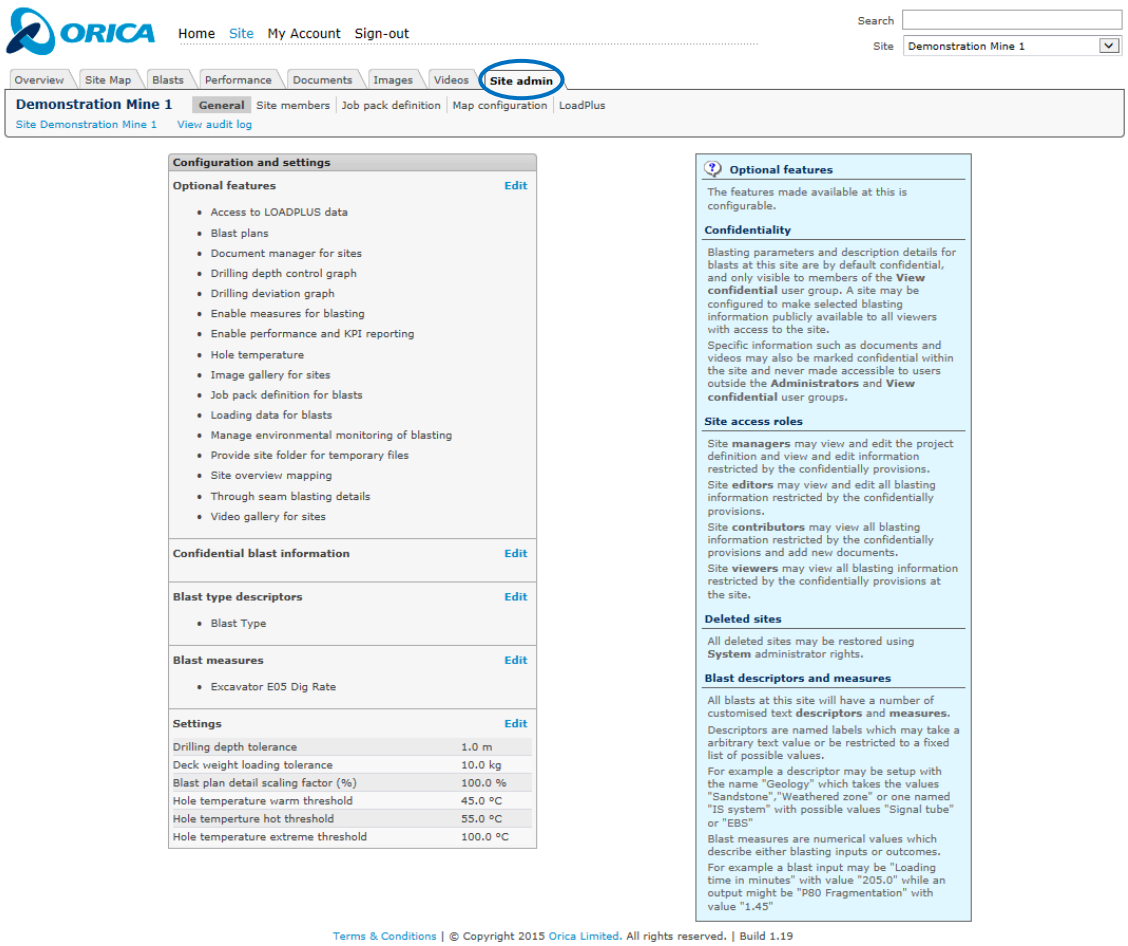
1. Click **Edit** under the **Optional features** heading.



2. Select the relevant features for your site by checking the tick boxes and click **Update.**



3. The selected features will be displayed under **Optional features** and additional tabs will be automatically added to the site (depending on the features selected).



NOTICE

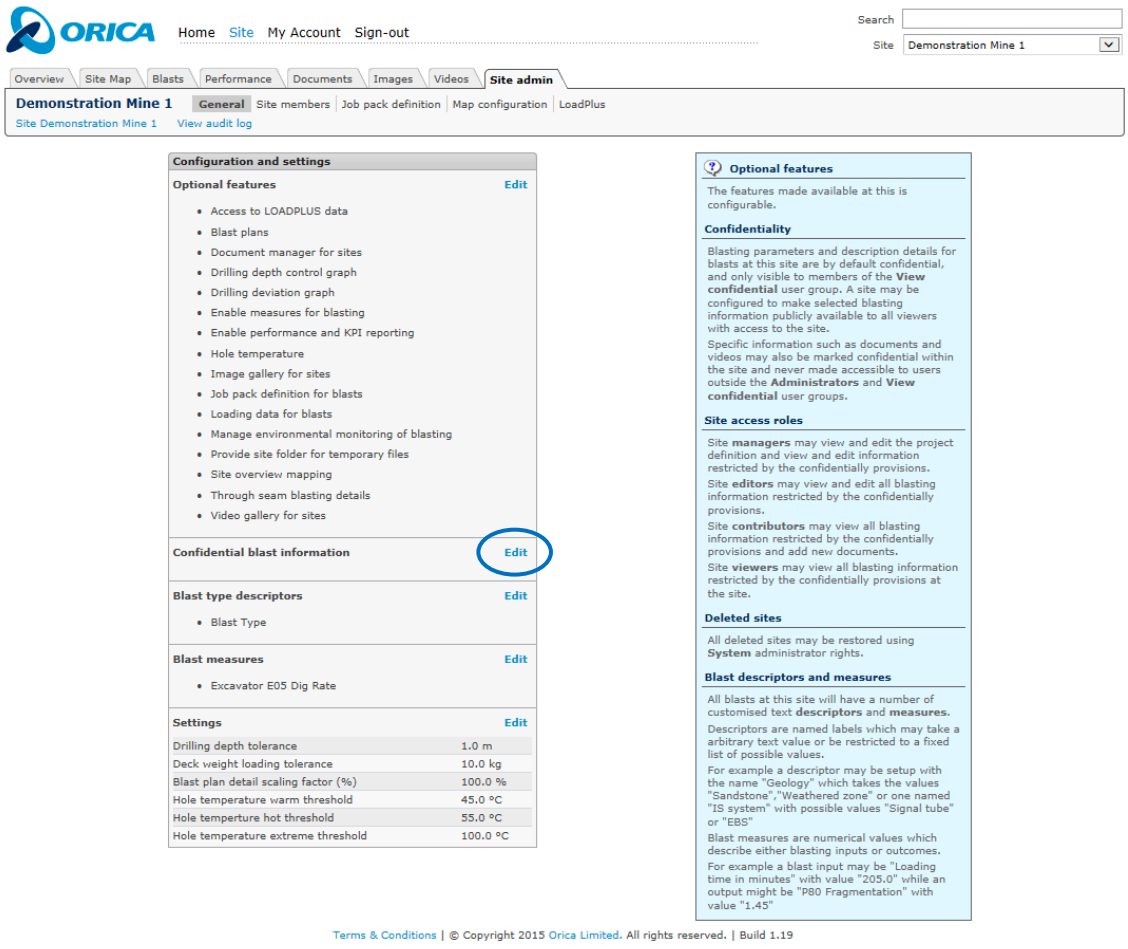
The following features are not currently functional:

- **3D face surface**
- **Access to automatic fragmentation measurement**
- **Access to EPaper blast related documentation**
- **Access to online vibration modelling**
- **Link to NCVIB online vibration monitoring software**

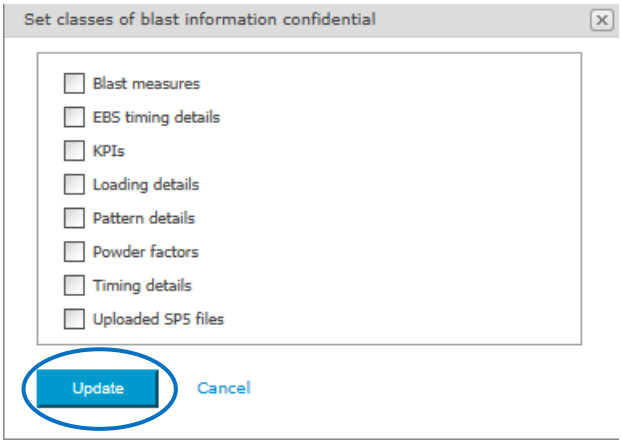
7.2.3 Confidential blast information

There are certain items which by default are visible only to Orica users. These items can be made visible to all site users through **Confidential blast information**.

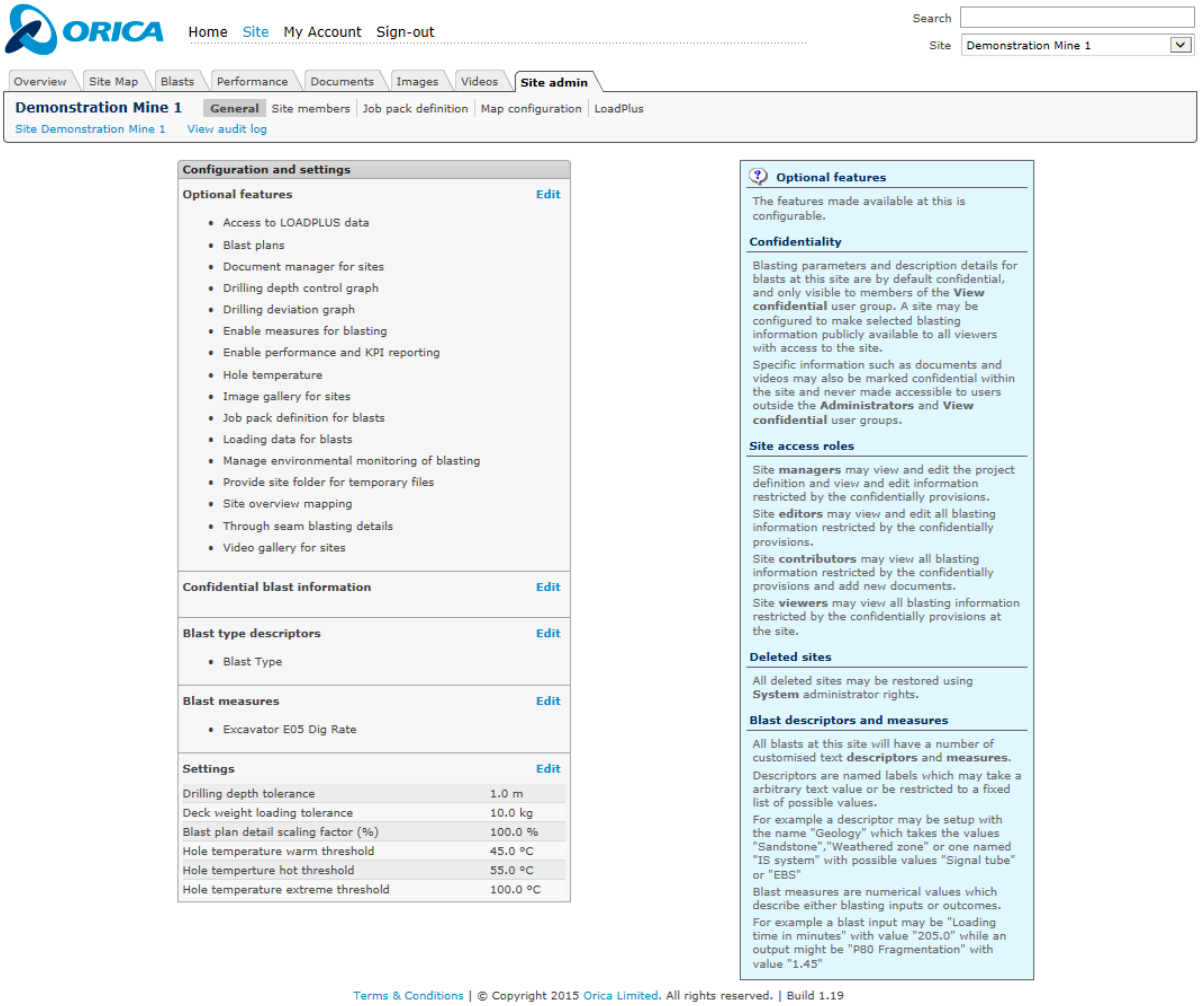
13. Click **Edit** under the **Confidential blast information** heading.



14. Select items to make confidential by checking the tick boxes and then selecting **Update**.



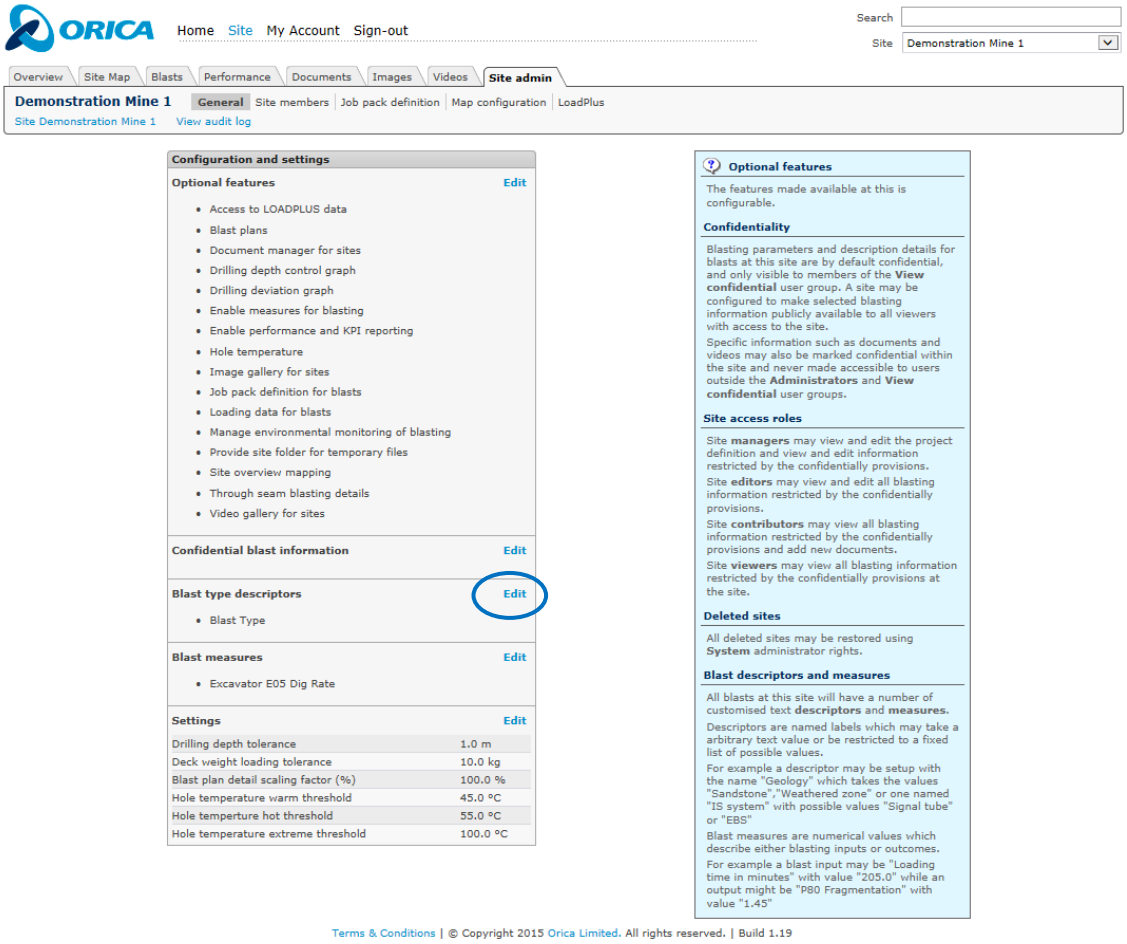
Selected items will be shown under the **Confidential blast information** heading and only be visible to the View Confidential User group.



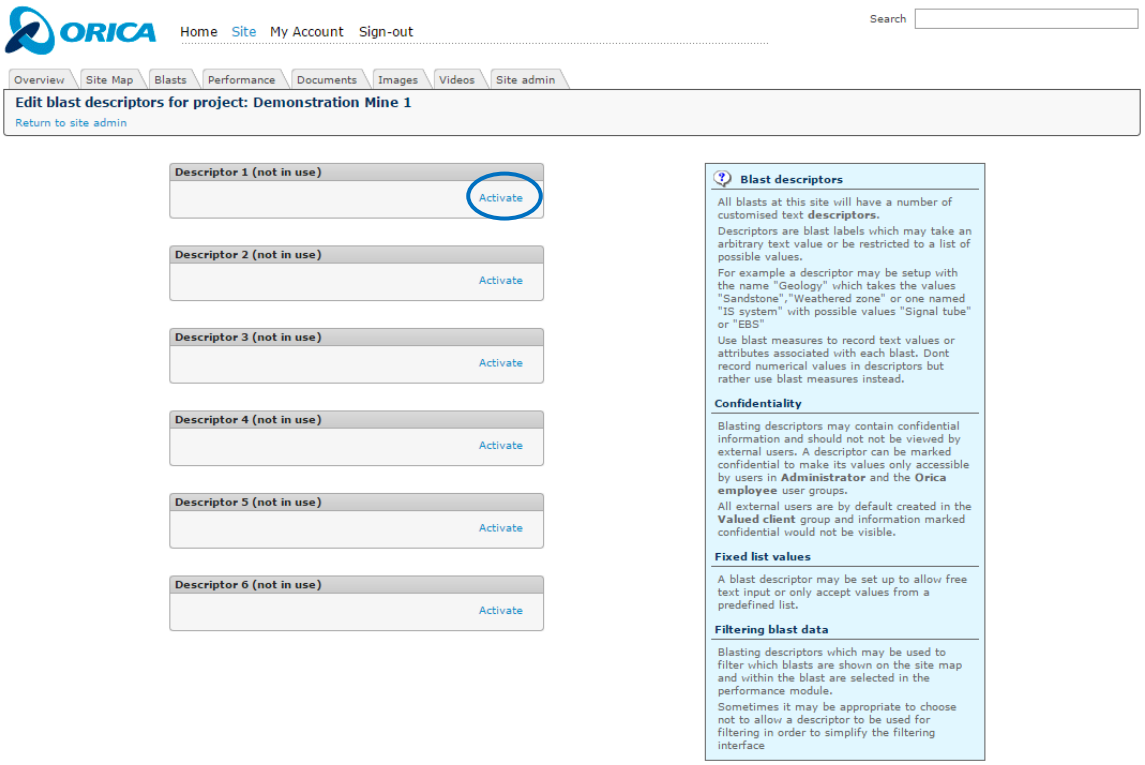
7.2.4 Blast Type Descriptors

Blast type descriptors are items used to identify certain characteristics of the blasts. These are customised text descriptors to filter and sort blasts into categories (for example blast type/pre-split) as per site procedure.

1. Click **Edit** under the **Blast type descriptors** heading.



2. Activate a descriptor by selecting **Activate**.



Information relating to blast descriptors is given in the blue box and summarised below:

Confidentiality –

- Descriptors can be marked confidential to make its values only visible to Orica users.

Fixed list values –

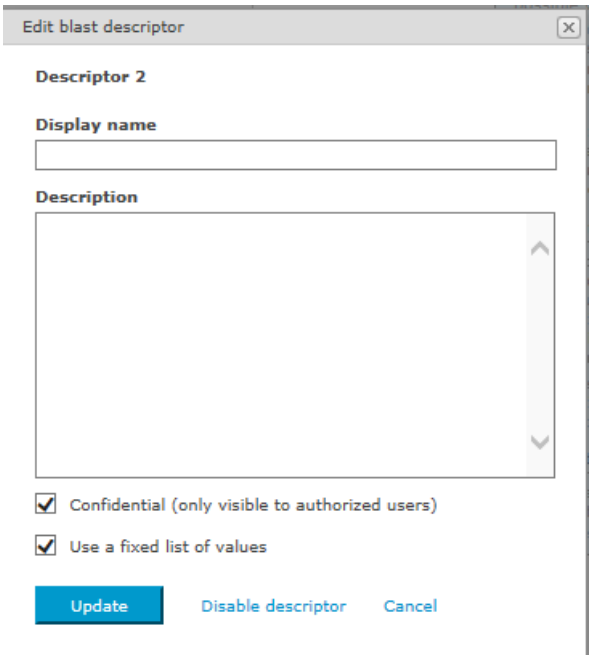
- Descriptors may be set up to allow free text input or only accept values from a pre-defined list.

Filtering blast data –

- Descriptors can be filtered to show only certain types of blasts on the site map
- Sometimes it may be appropriate to choose not to allow a descriptor to be used for filtering in order to simplify the filtering interface.

By default, all blast descriptors are turned off and must be activated and configured before use.

3. Configure the blast descriptor by filling in the information in the **Edit blast descriptor** box.



Display name –

- Name that will be displayed to identify the type of blast descriptor.

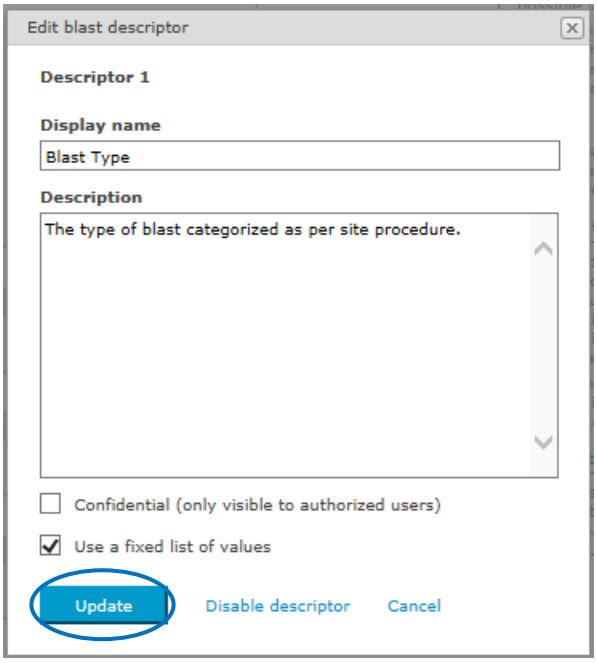
Confidential descriptor –

- The blast descriptor will be only visible to Orica users if confidential descriptor is selected.

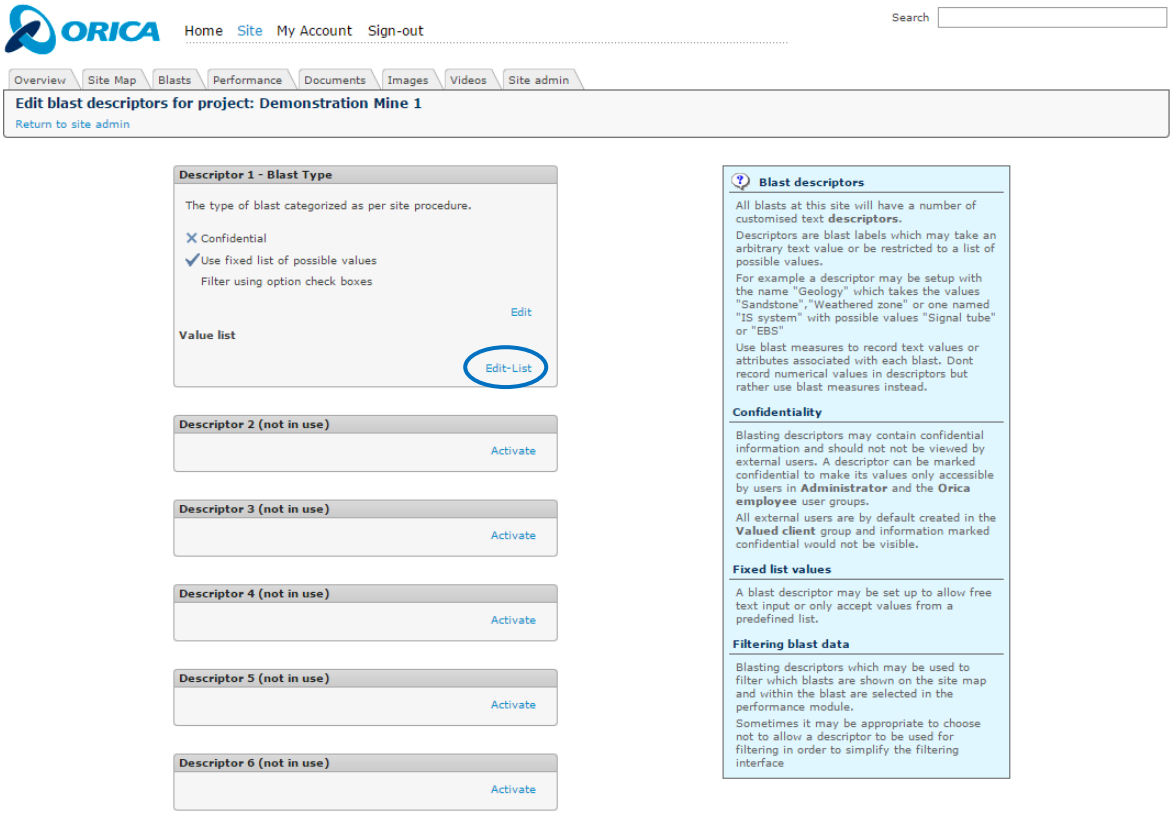
Use a fixed list of values –

- It is recommended to keep this box ticked. This will make it easier to filter on a site map, and to sort and filter on the blast list (see Section 4.4 Viewing the Site Map).

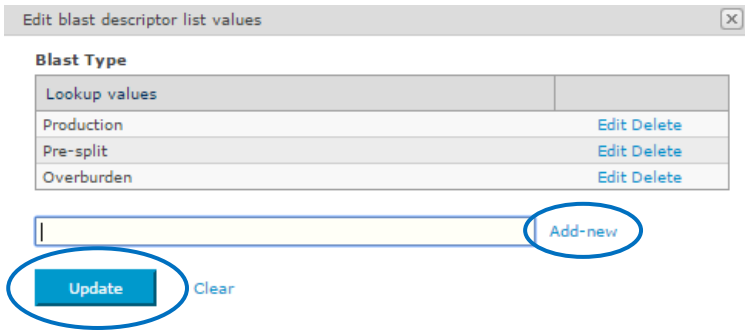
4. Once the descriptor information has been entered click **Update.**



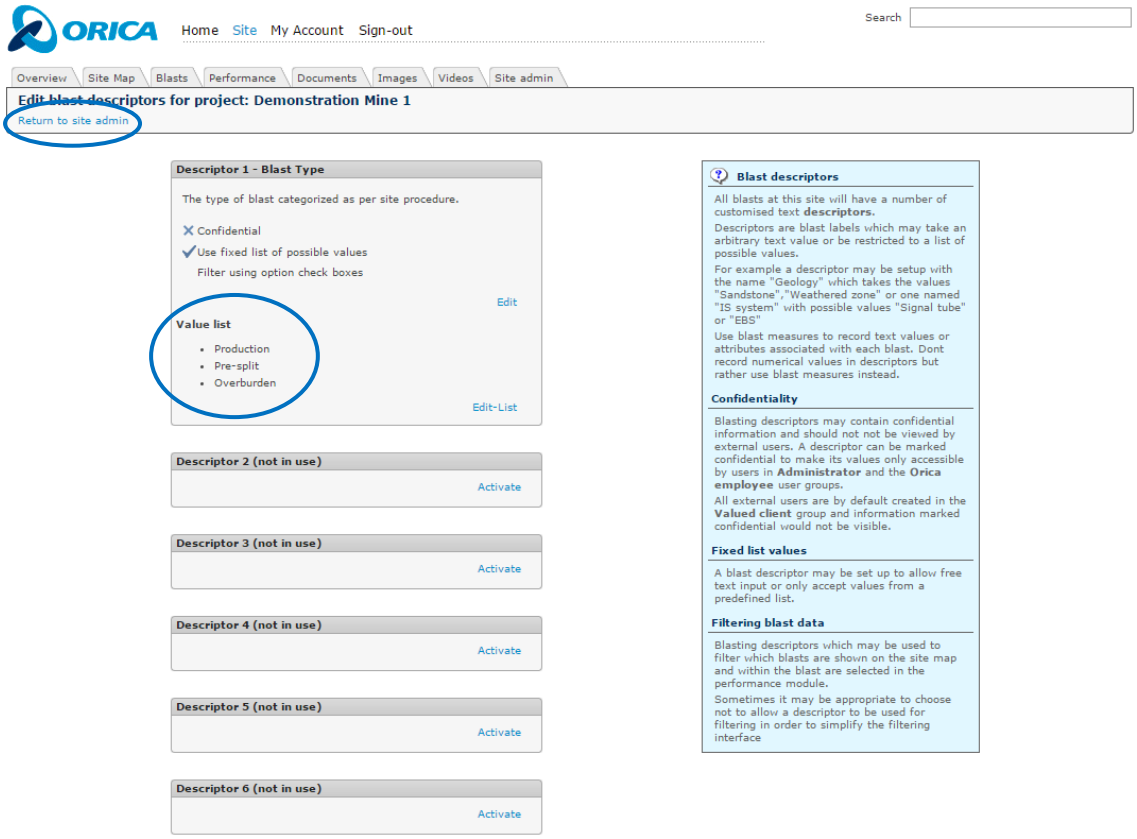
5. If the **"Use a fixed list of values"** was selected, an option to edit the **Value list** will appear. Click **Edit List** to edit the valve list.



6. Enter in the values associated with the descriptor, and for each value click **Add new.** Click **Update** once all values are entered.



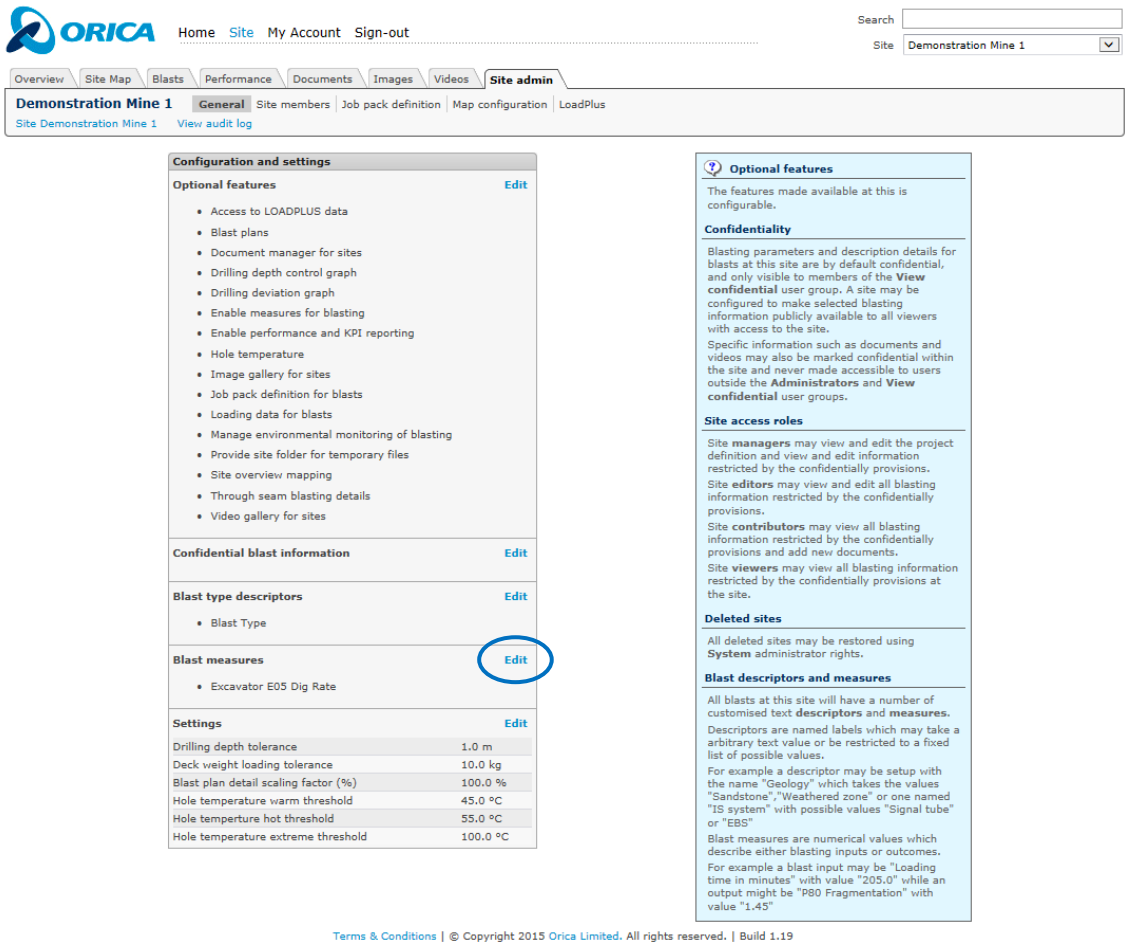
7. The list of values will now appear in the descriptor. Click **Return to site admin**.



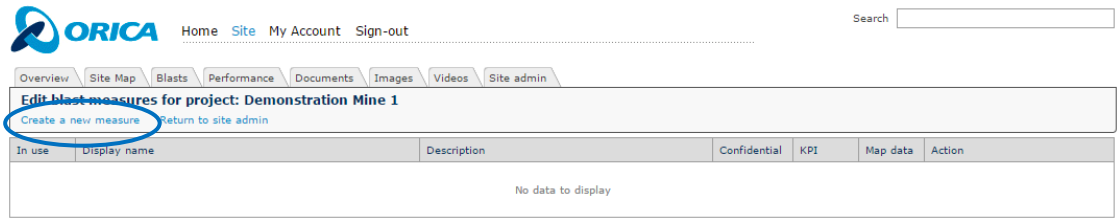
7.2.5 Blast Measures

The following describes how to create blast measures for the site. Blast measures are numerical values which describe the blast (for example “Loading time in minutes” with a value of 205.5).

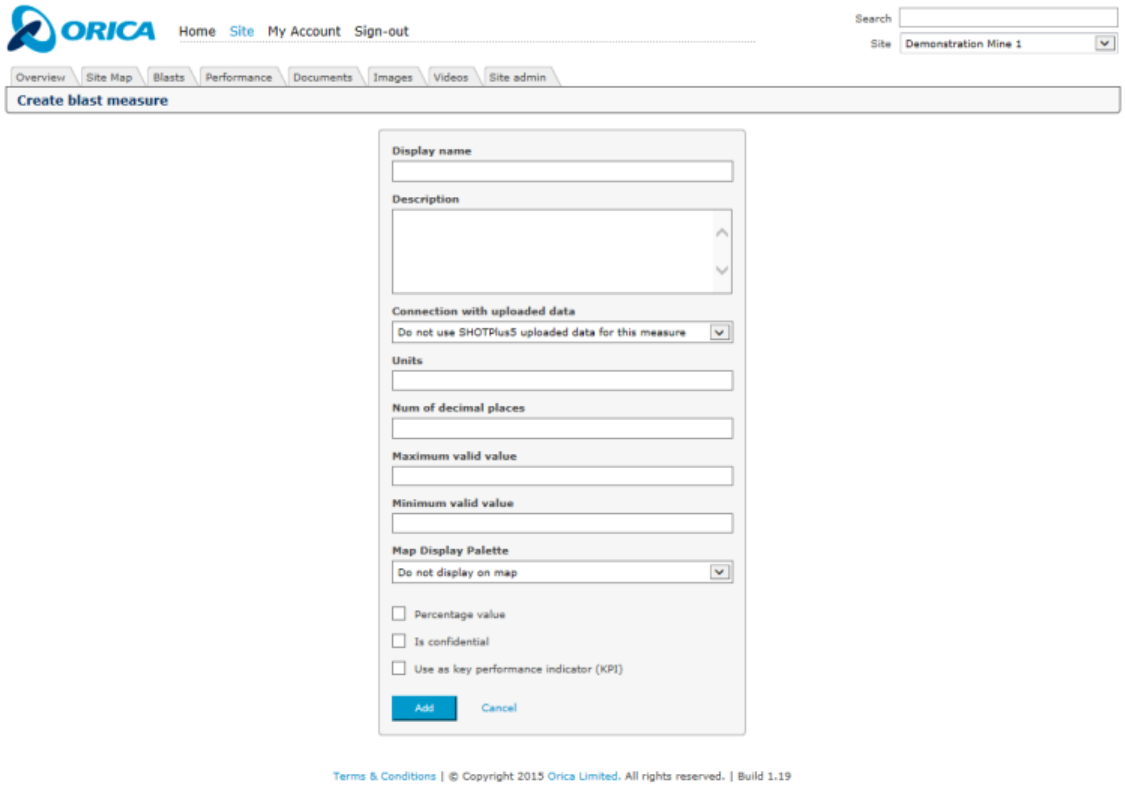
1. Click **Edit** under the **Blast measures** heading.



2. Select **Create a new measure**.



3. Configure the blast measure by filling in the information in the **Create blast measure** box.

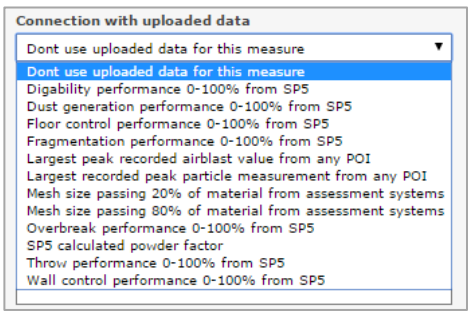


Display name –

- Name that will be displayed to identify the type of blast measure.

Connection with uploaded data –

- Data can be extracted from SHOTPlus5™ or from environmental values recorded against points of interest.
- Data can also be entered manually by selecting “Don’t use uploaded data for this measure”.



Units –

- Type the unit's abbreviation for the measure (eg. bcm/hr). Note: These units will not be affected by the user's unit settings.

Num of decimal places –

- Restrict the number of decimal places a user can enter for the measure

Maximum and Minimum valid value –

- Maximum and minimum values can be defined for the measure to reduce errors.

Map Display Palette –

- Select the colour scheme used for displaying this measure on the site map.

Percentage value –

- The measure can be displayed as a percentage

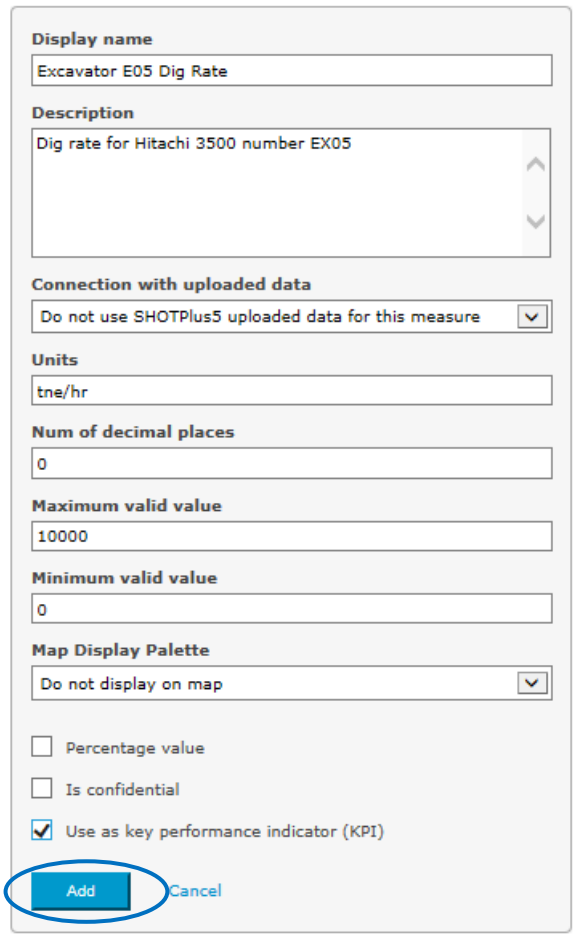
Is confidential –

- The measure can be confidential (will only be visible to Orica users)

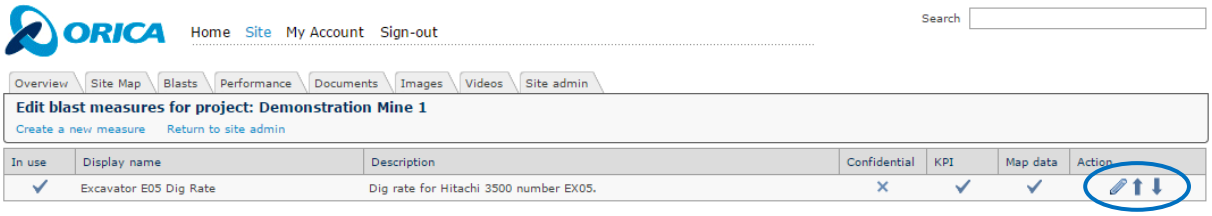
Use as key performance indicator (KPI) –

- The measure can be put as a key performance indicator and will appear in the performance tab.

4. Enter relevant values for the measure and click **Add**.



Blast measures will then appear in list form on the page. Use the edit icon to make changes to the blast measure and the up and down arrows to change the order that the measures will be displayed in lists.

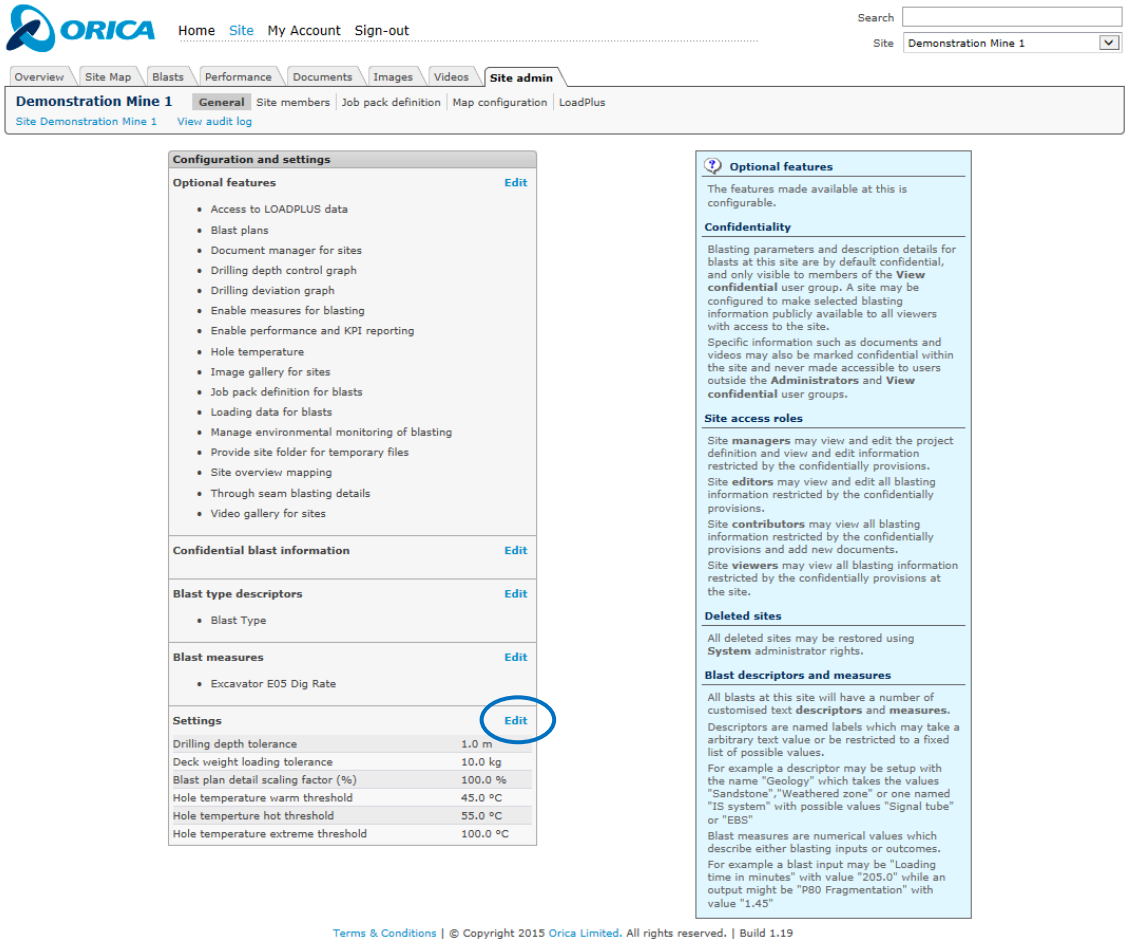


A blast measure can also be made inactive, meaning that new blasts from that point onwards will not prompt for the measure to be entered. Historical data for that measure will remain stored.

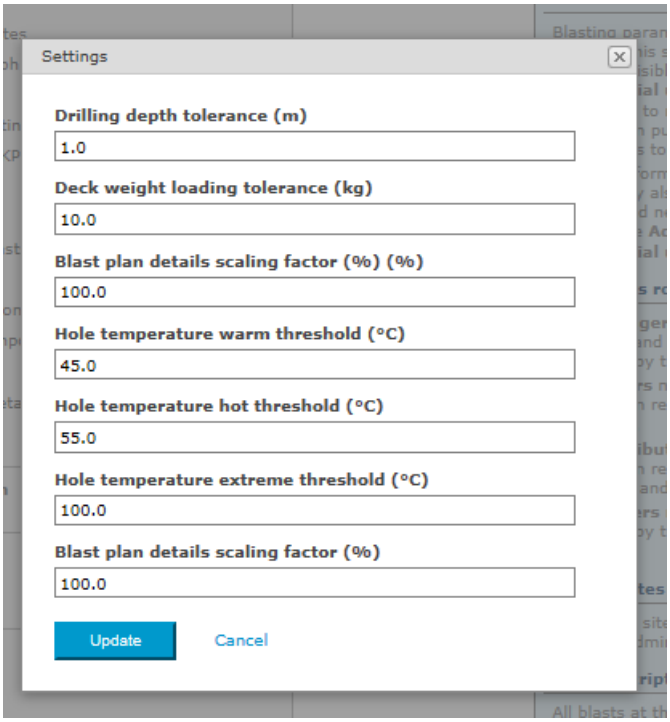
7.2.6 Settings

The following describes how to modify the settings for the site.

1. Click **Edit** under the **Settings** heading.



2. Enter any new values in the appropriate field.



NOTICE

Drilling deck tolerance and deck weight loading tolerance are used to highlight out of tolerance values on maps and plans.

Blast plan details scaling factor is used to change the size of text and icons on the blast plan/s.

Temperature thresholds should be set according to the site's hot ground management plan.

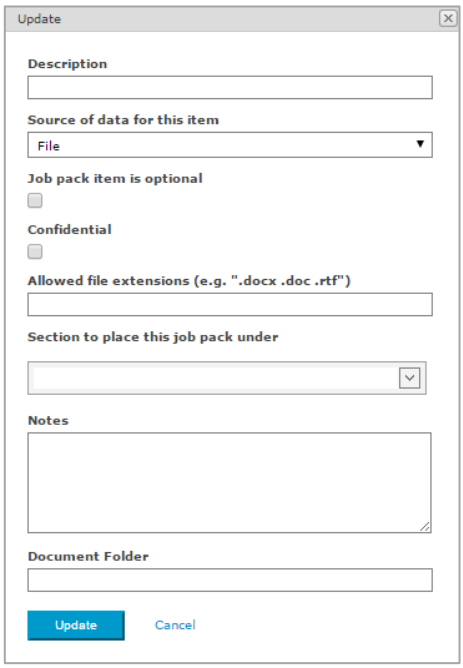
3. Select **Update**.

7.3 CREATING A JOB PACK DEFINITION

To manage job packs through BlastIQ, a job pack definition must be created. The job pack definition will outline the items that need to be completed in the job pack.

1. Under **Job pack definition** select **Add New Job Pack Item**.

2. Enter the details of the job pack item.



Description –

- Name of the job pack item.

Source of data for this item –

- The source of data for the item can be selected as **File** or **Manual** from the drop down list (Sections 7.3.1 and 7.3.2 give additional information for configuring the item for each source).

Job pack item is optional –

- If the job pack item is optional, it does not have to be complete for the job pack to be audited as “complete”.

Confidential –

- Selecting **Confidential** will make the item only visible to Orica users.

Allowed file extensions –

- Entering the allowed file extensions provides a filter to restrict the file types that users can load against the item. For example a survey file that must be uploaded in the correct format for users to view the file on their computers. This will only appear if **File** is selected for the source of data. Multiple file extensions should be separated by **spaces**.

Section to place this job pack under –

- This will create a high level section heading that the job pack item will be placed under.
- A new heading can be created, or an existing one selected from the drop down list.

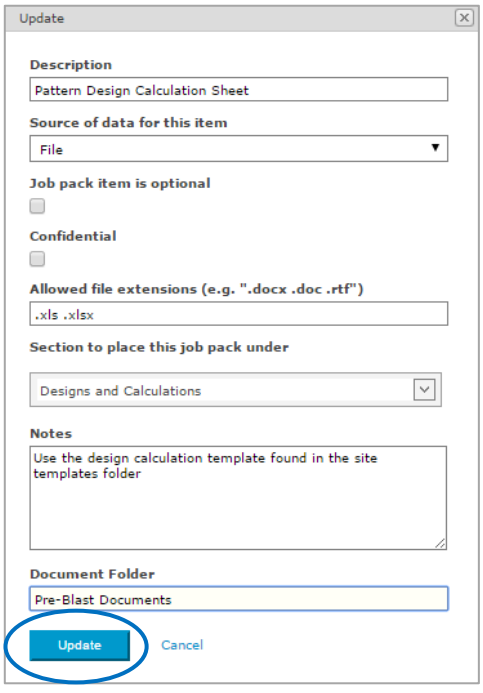
Notes –

- Notes can be added to describe the item.

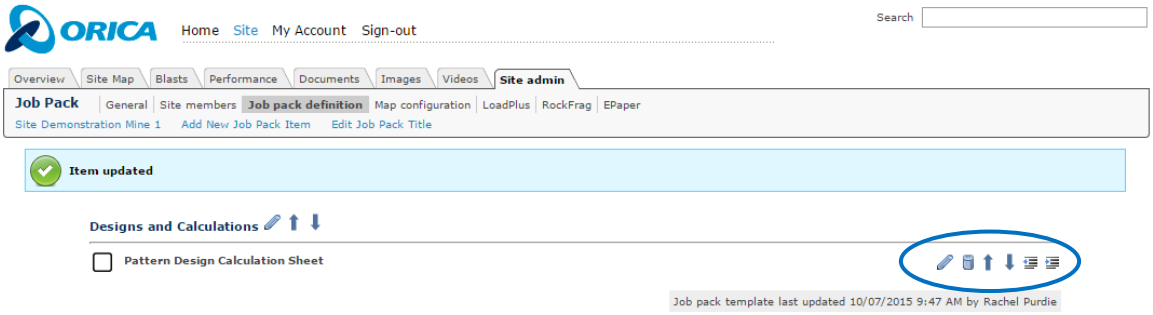
Document Folder –

- Entering a document folder will create a folder in the documents tab under the blast (document management is explained in Section 6.10).
- The file from the job pack item will be stored in this folder after it is uploaded.

3. After information is added, click **Update**.



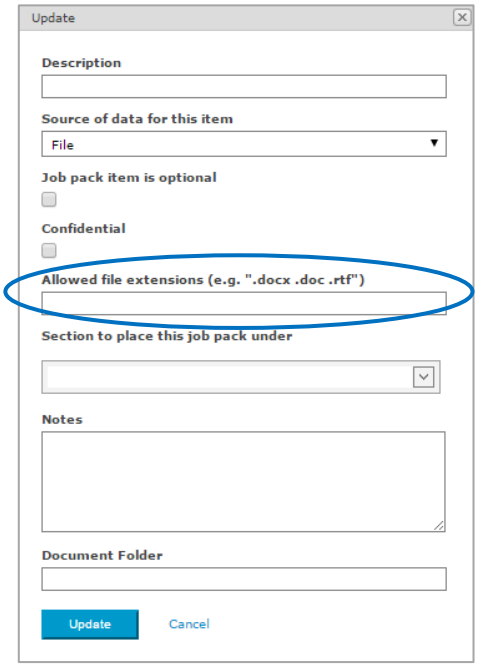
4. The job pack item will then be displayed in list form. Items can be edited, removed, re-ordered with up/down arrows and indented using the toggle keys next to the item.



5. All job pack items will appear on the page after they are entered, and section headings can be edited and re-ordered with up/down arrows.

7.3.1 Configuring to Upload a Job Pack Item from File

Selecting **File** as the source of data for the item will give an upload button next to the job pack item. It will also give the option to specify **Allowed file extensions**.

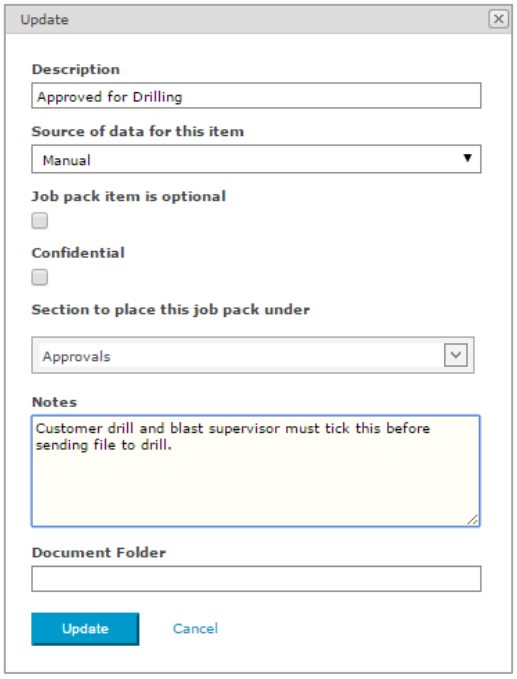


Allowed file extensions –

- Entering the allowed file extensions provides a filter to restrict the file types that users can load against the item. For example a survey file that must be uploaded in the correct format for users to view the file on their computers.

7.3.2 Configuring to Manually Enter a Job Pack Item

Selecting **Manual** as the source of data makes the item a tick box which can be checked when appropriate (for example “Approved for Drilling”). When the box is ticked, it applies a time stamp and records the user who ticked the box. A user can also make a comment associated with the item.



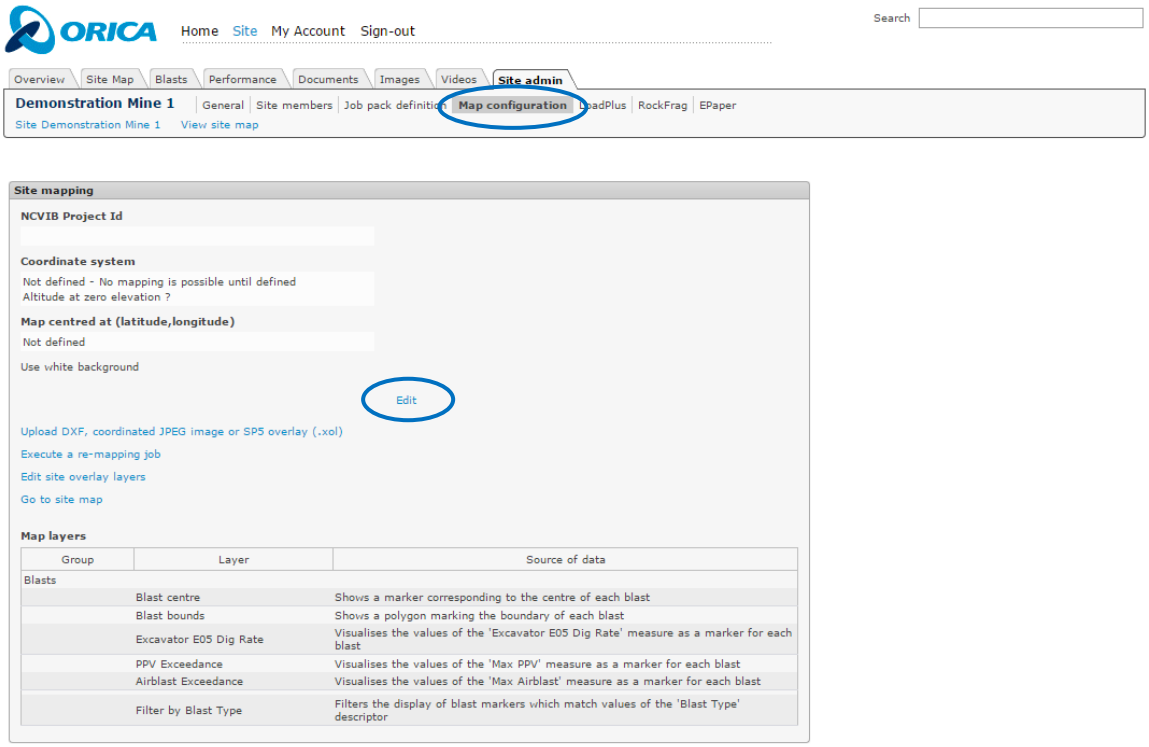
7.4 CONFIGURING SITE MAP

The site map is an optional feature that can be turned on through the Features selection.

7.4.1 Define Site Map Coordinate System

The following describes how to select the correct coordinate system for the site location.

1. Under **Map configuration** select **Edit**.

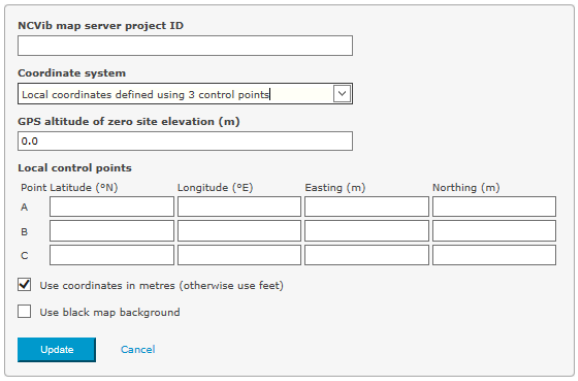


2. Choose a coordinate system.

   If information on your site coordinate system has been communicated to the system administrator, they can tell you which coordinate system to select, or they can select it for you.

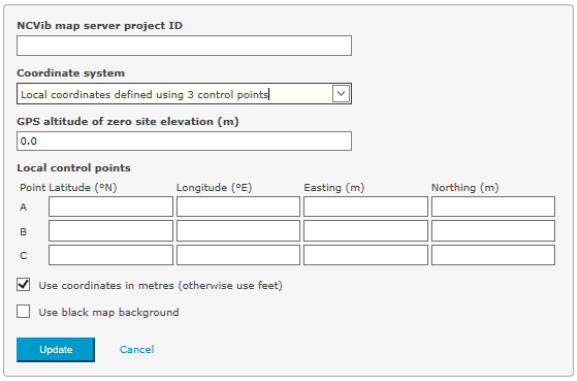
Local coordinates defined using 3 control points –

- If a site is using a custom coordinate system, the coordinates can be transformed by using 3 known points on the site by entering their latitude and longitude and their easting and northing. Uncheck the 'Use coordinates in metres' box if the easting and northing values are entered in feet.



Local coordinates defined using custom transform parameters –

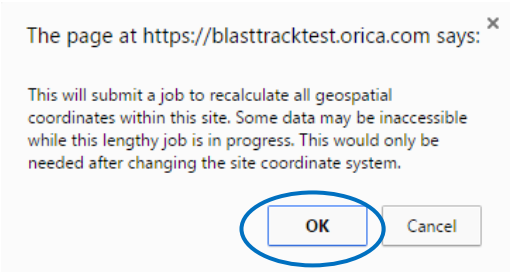
- The site surveyor may be able to provide custom transformation parameters.



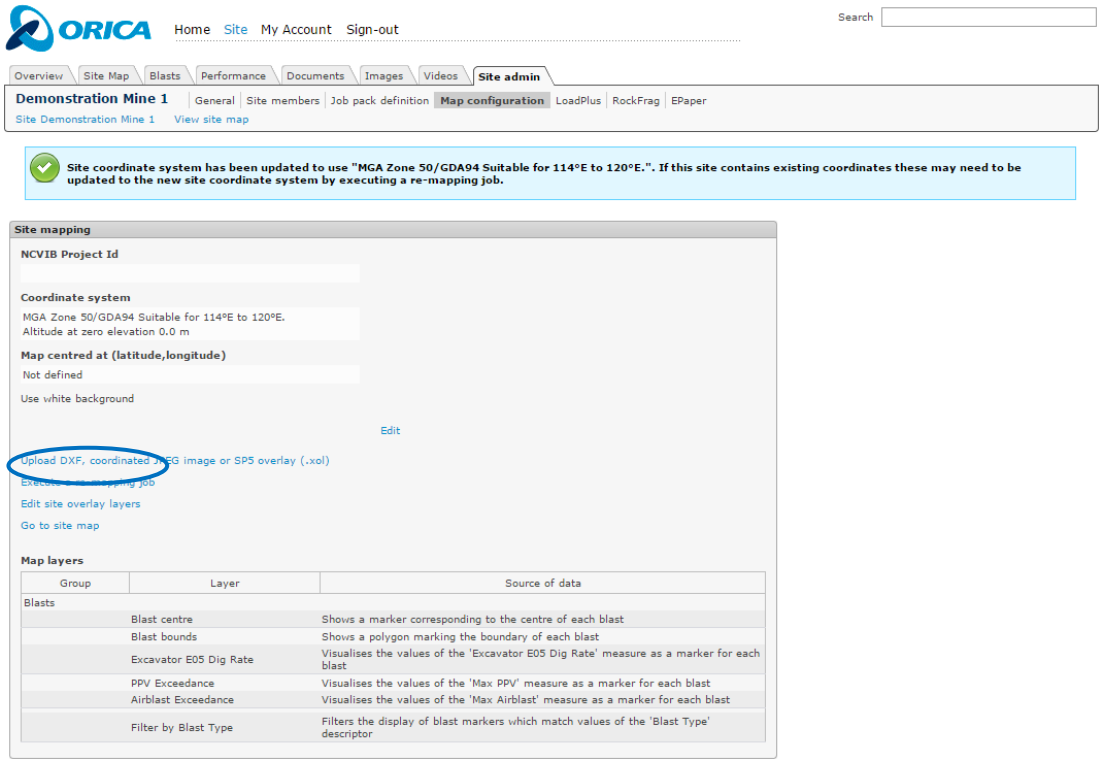
3. Enter the correction number in **GPS altitude of zero elevation** if the site uses an elevation that is different to GPS elevation.

4. Select **Update.**

5. Select **OK.**



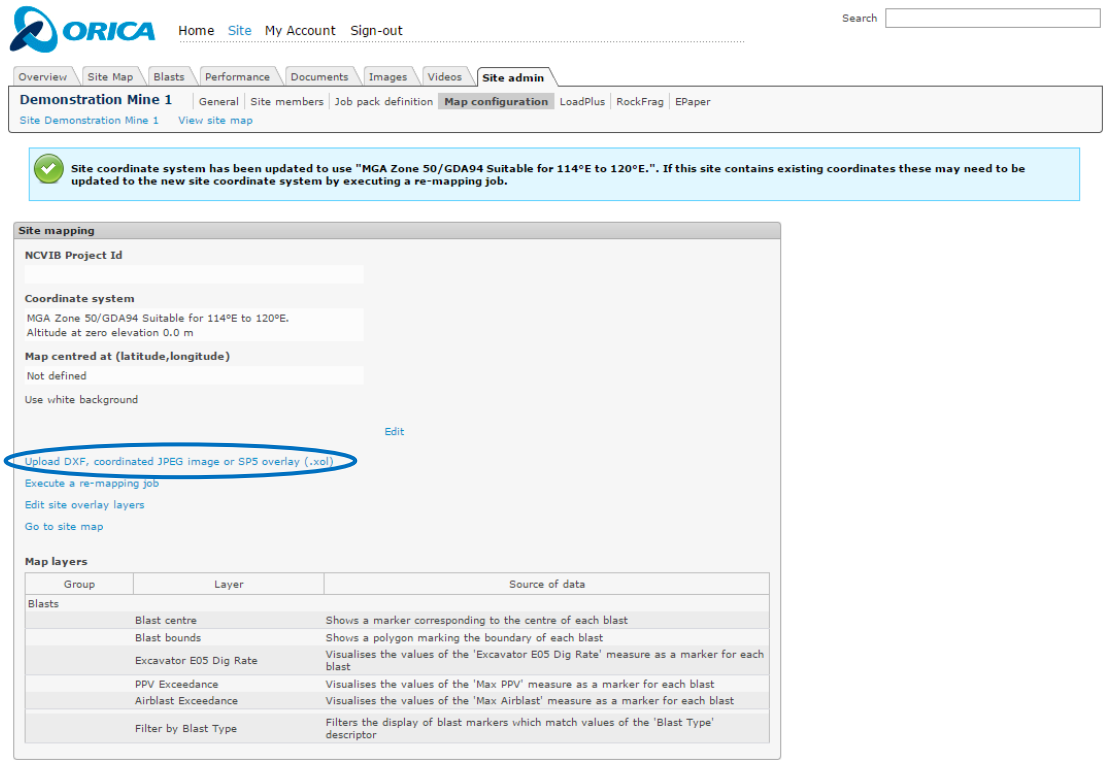
6. If the coordinate system is changed after data is entered, select **Execute a re-mapping job** in **Map configuration**. This will transform all current site data to the new coordinate system.



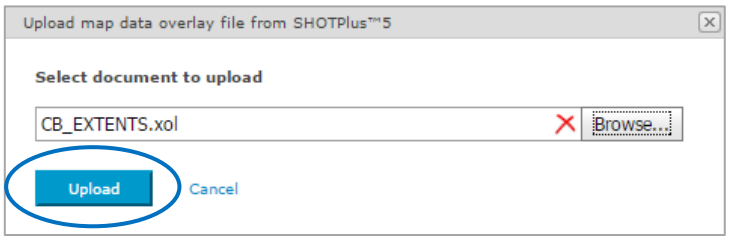
7.4.2 Uploading a Map Overlay

The site map may contain a number of overlay layers containing lines, polygons, circles and text, or a georeferenced jpeg image. An imported layer either replaces the contents of existing layers with the same names or creates additional layers with the imported layer names.

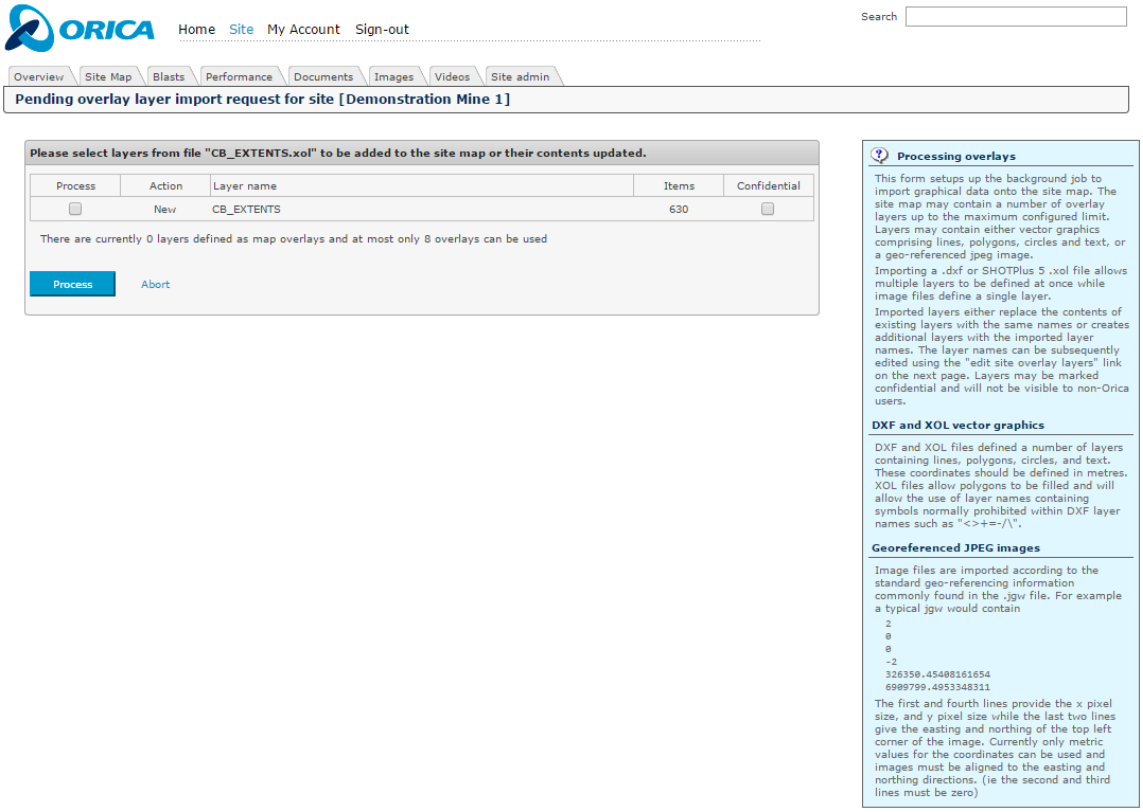
1. Select **Upload DXF, coordinated JPEG image or SP5 overlay (.xol)**.



2. Browse for the relevant file and click **Upload**.



3. If uploading a DXF or XOL file, individual layers can be selected for upload. Each layer will be selectable on the site map individually. This screen also displays how many items are on each respective layer.



Information relating to overlay imports are given in the blue box and summarised below:

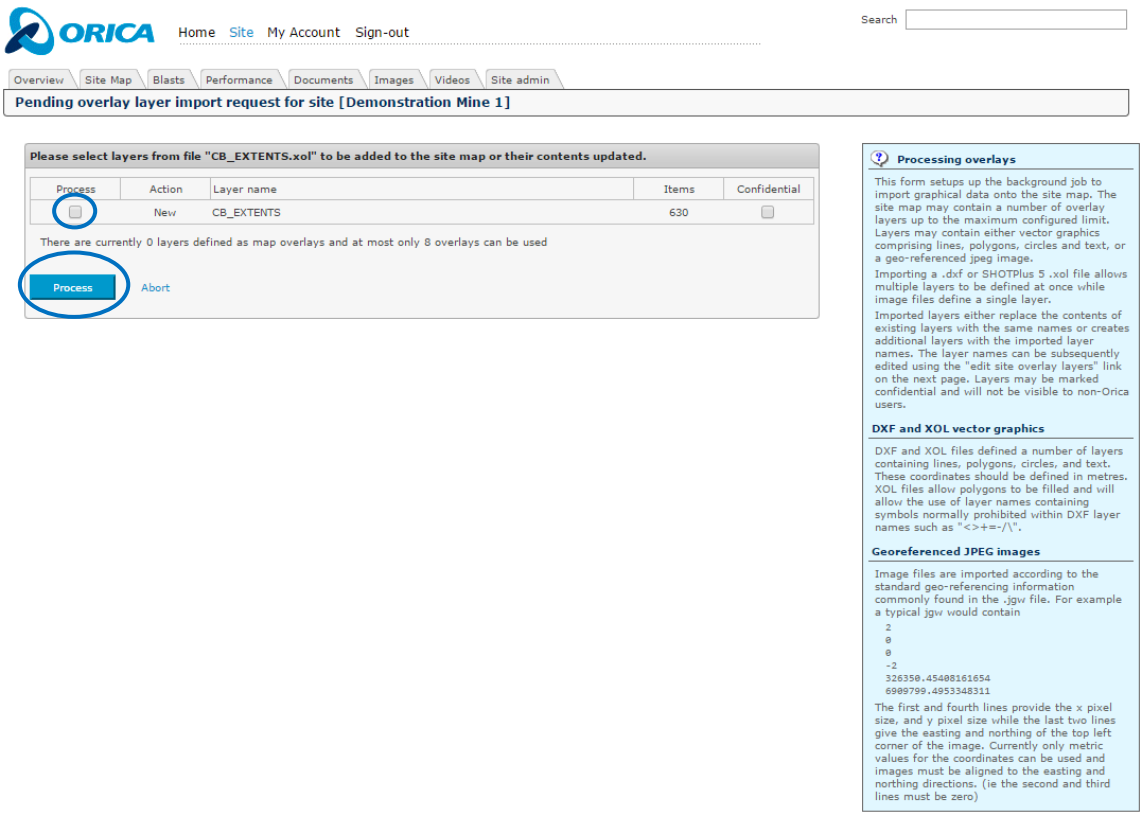
DXF and XOL–

- DXF and XOL files define a number of layers containing lines, polygons, circles and text.
- XOL files allow polygons to be filled and will allow the use of layer names containing symbols.

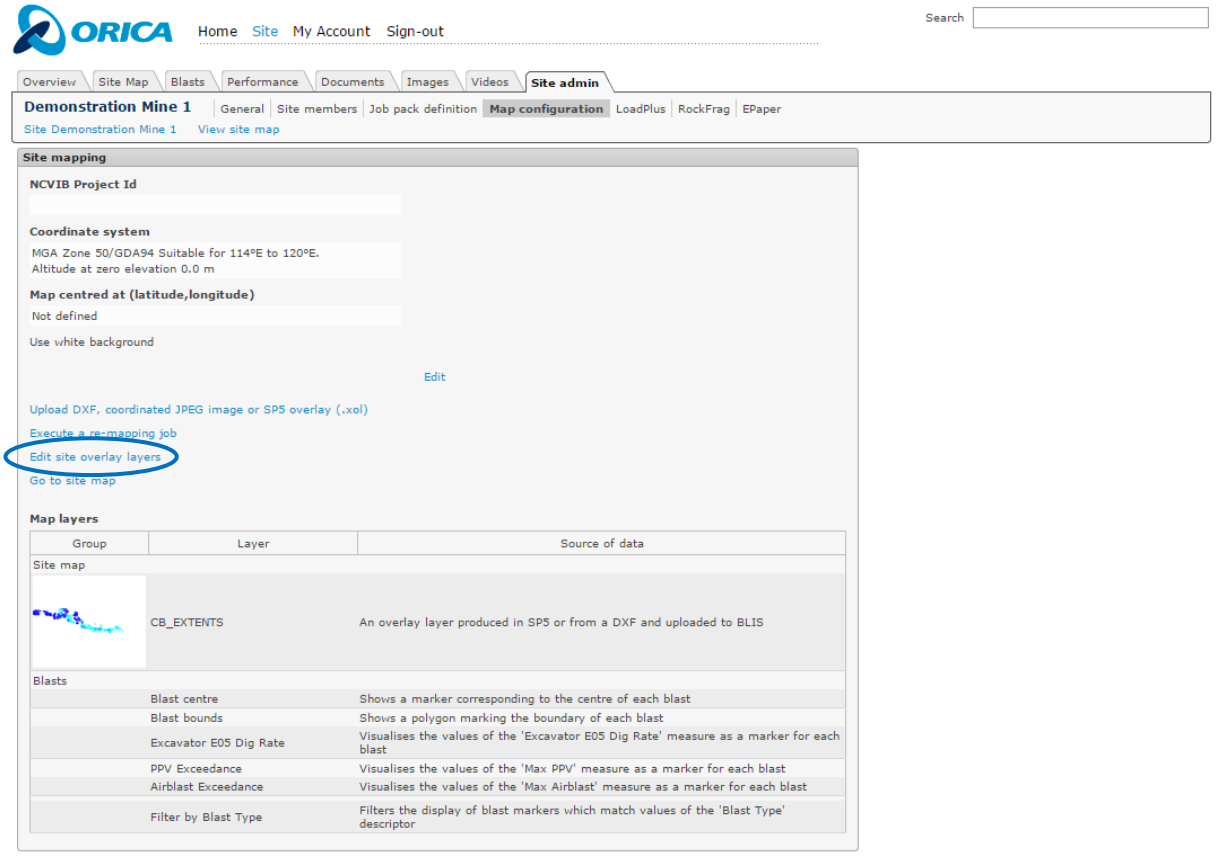
Georeferenced JPEG images –

- Image files are imported according to the georeference information found in a matched .jgw file.

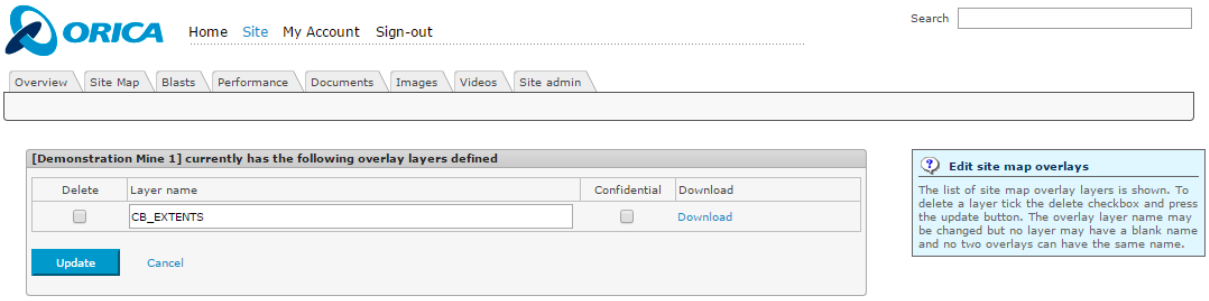
4. Tick the layers that will be shown on the site map and select **Process**.



The information will then be displayed under **Map layers**. To edit site overlays select **Edit site overlay layers**.



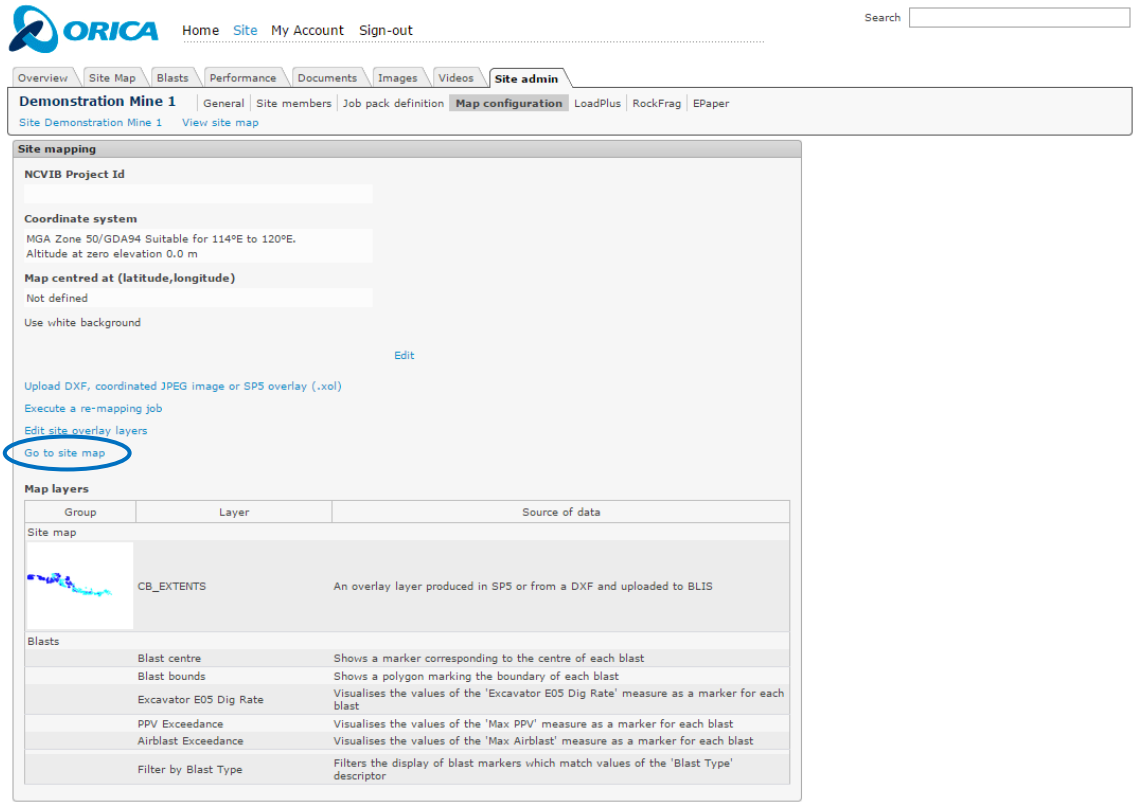
From the edit screen, delete or download a copy of the layer, or make the layer confidential. Select **Update** to save changes.



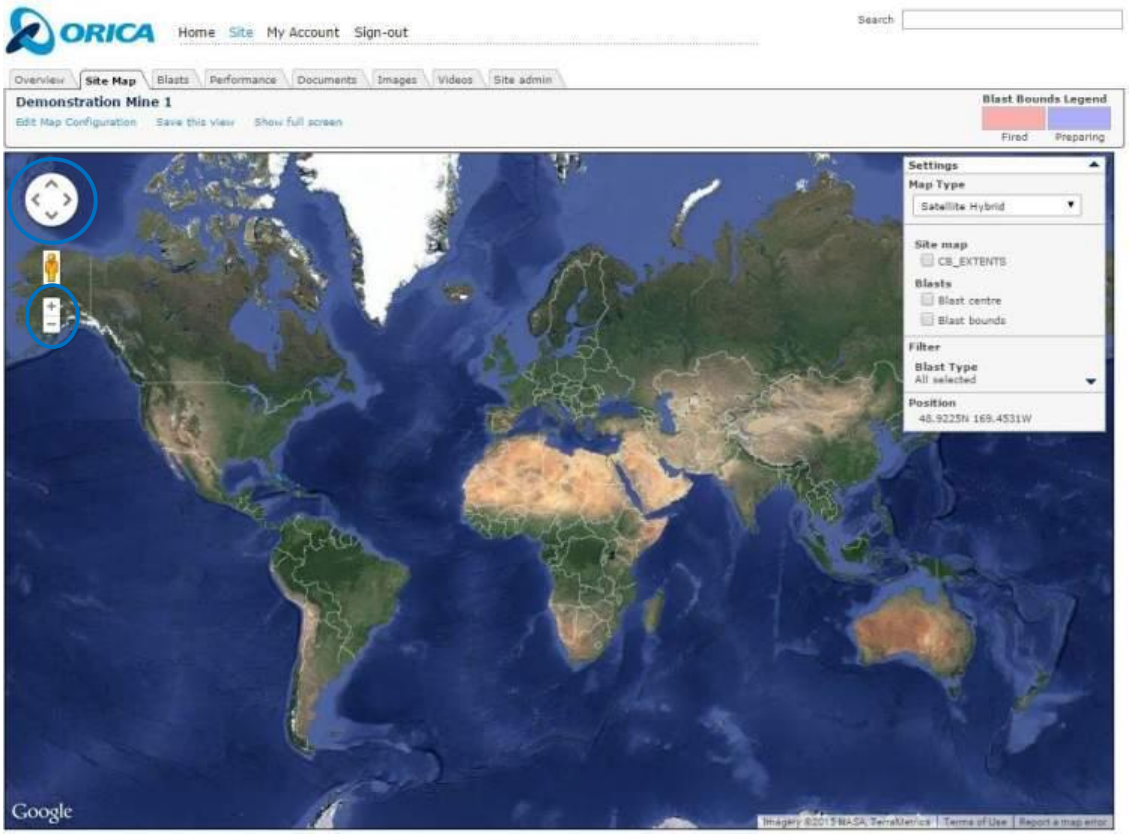
7.4.3 Select a Default Site Map View

The following describes how to setup a default map view that will be shown whenever any user views the **Site map**.

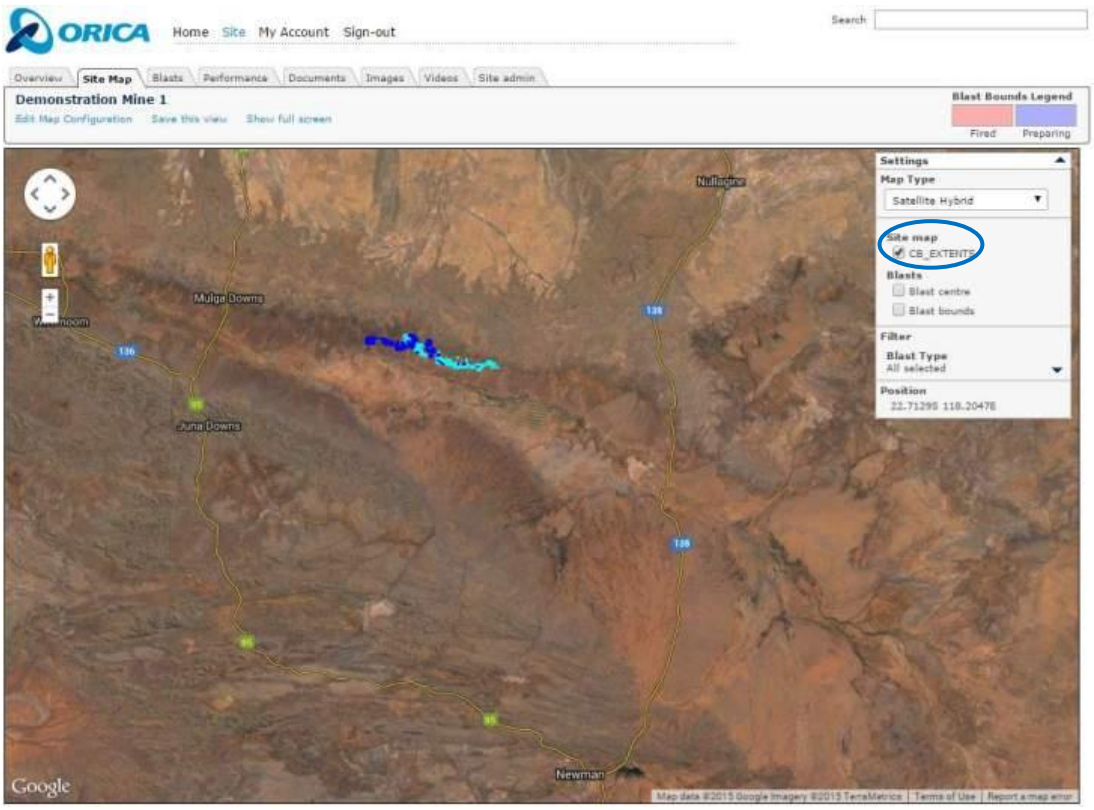
1. Under **Map configuration** select **Go to site map**.



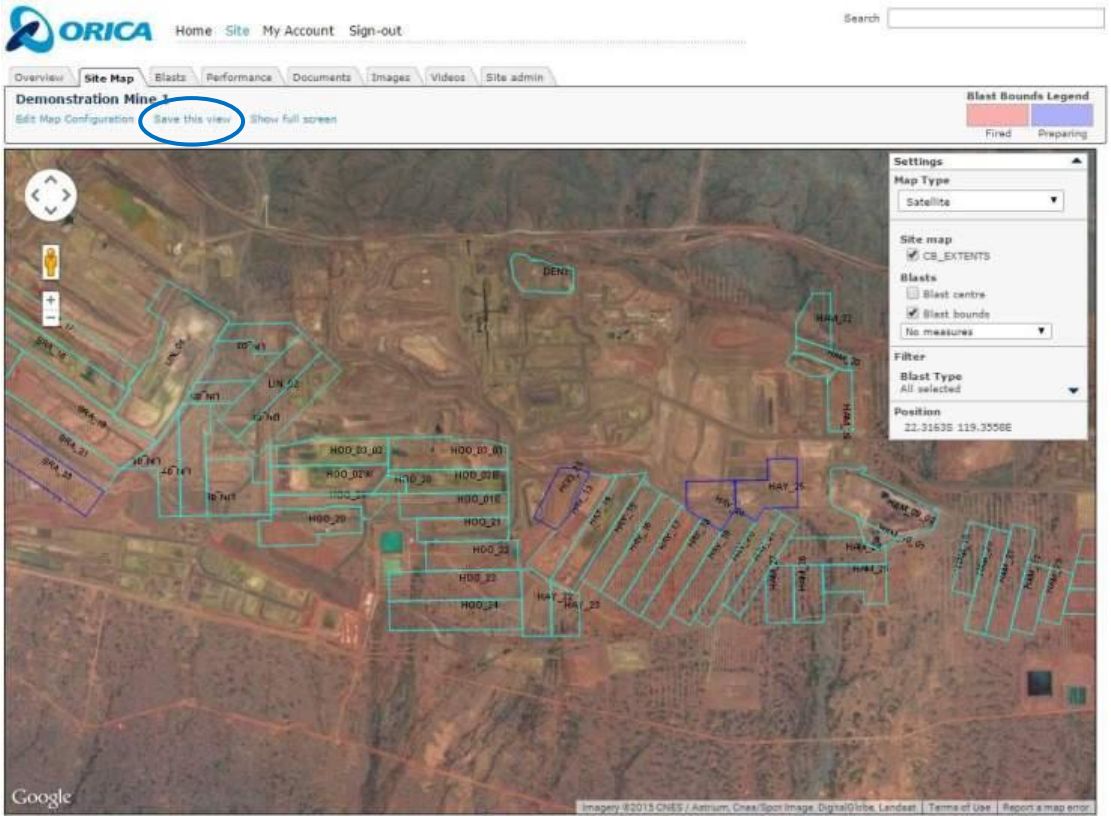
2. Use the map's zoom and pan functions to find the site.



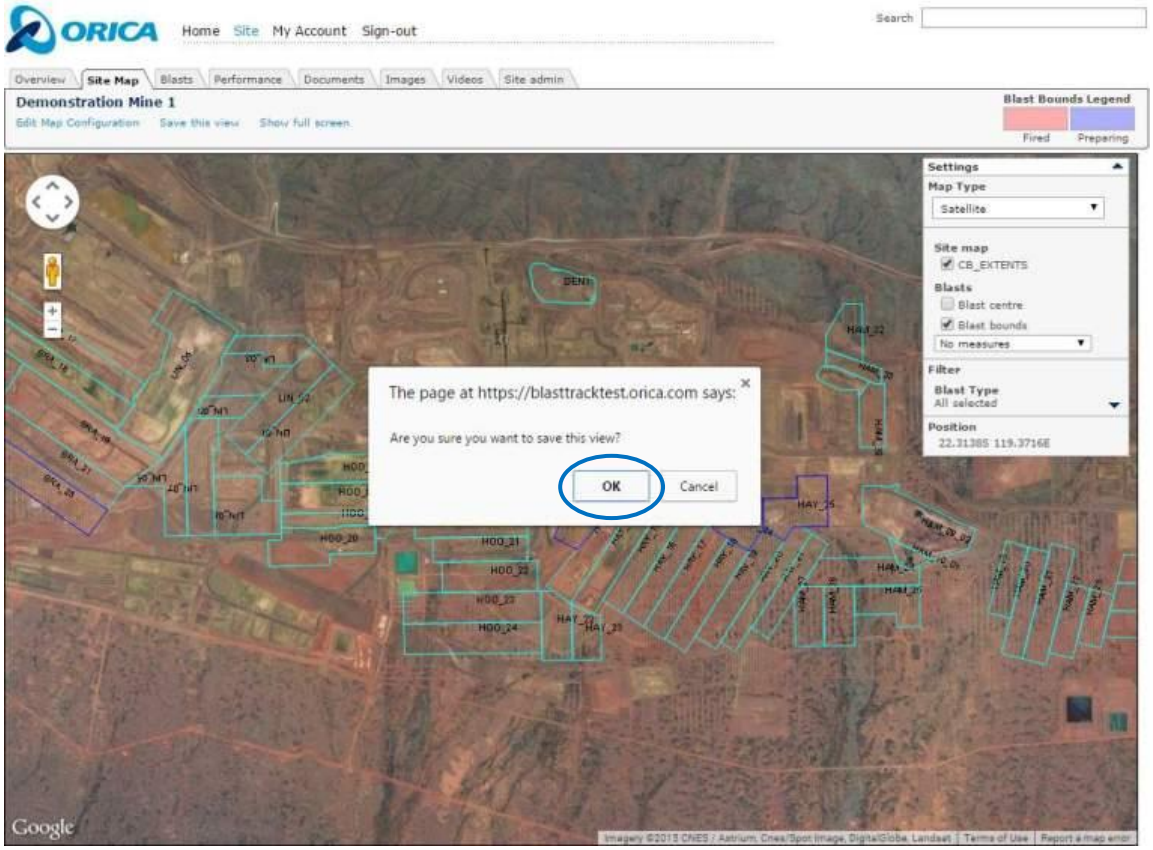
3. Turning on the DXF layers may assist in finding the location of the site.



4. Once the map is at an appropriate zoom and area of the map, select **Save this view**.



5. Select **OK**.

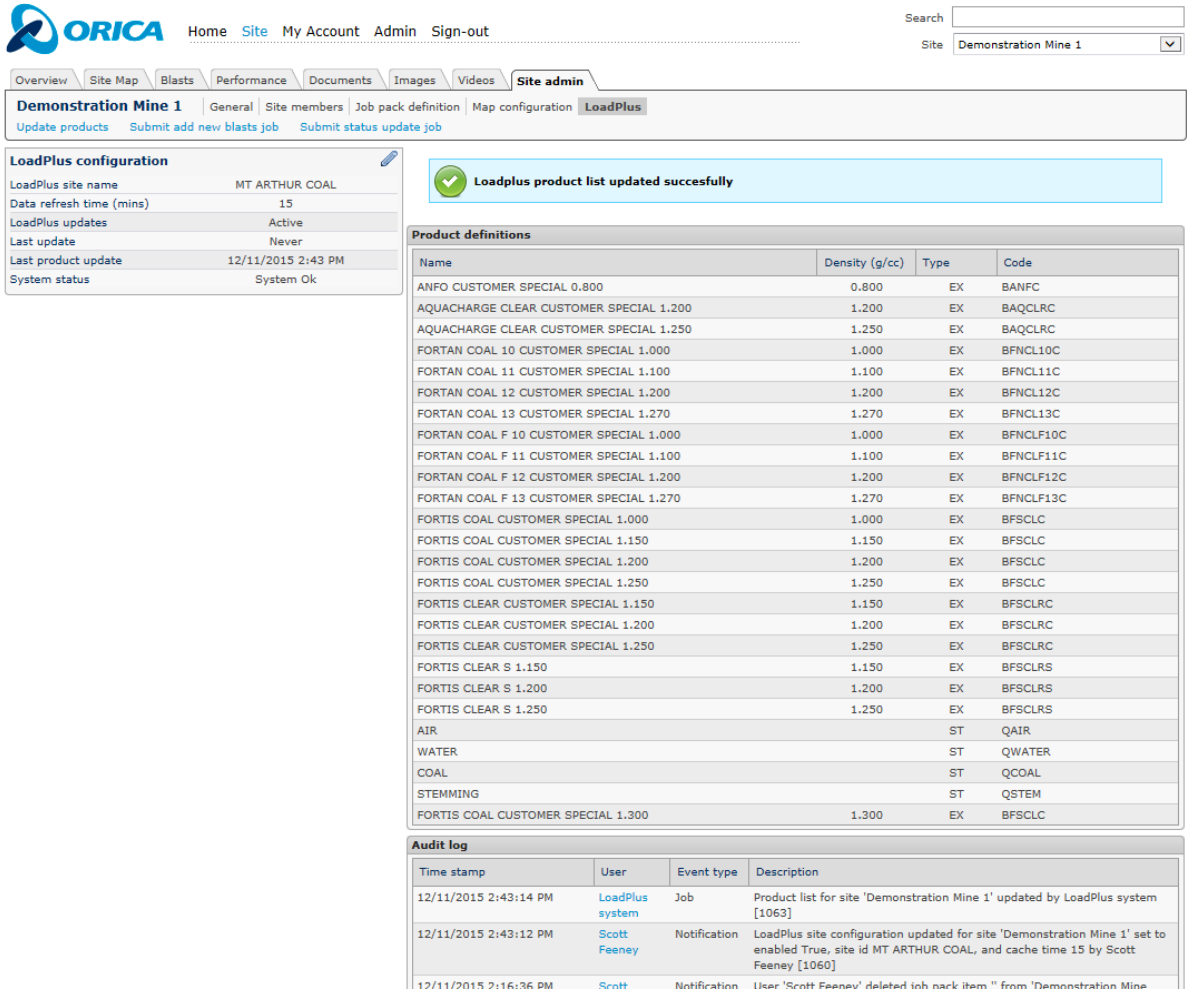


The current view and layers visible on the screen will be the default site map view for any users that visits the site on BlastIQ. This can be changed at any time to adjust the area or layers visible.

7.5 SETTING UP LOADPLUS CONNECTION

1. Contact a BlastIQ administrator to configure connection to the LOADPlus system.

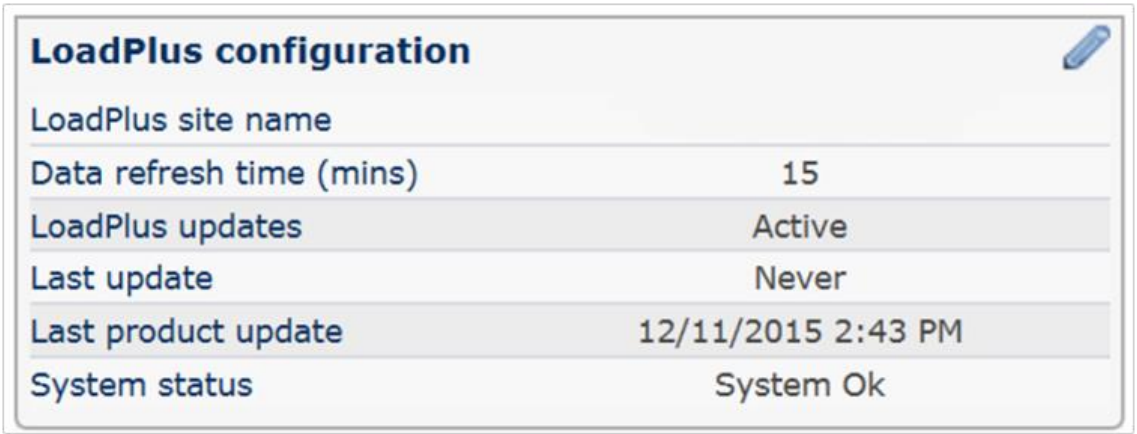
Once configured, LOADPLus Connection provides the following information:



It will display:

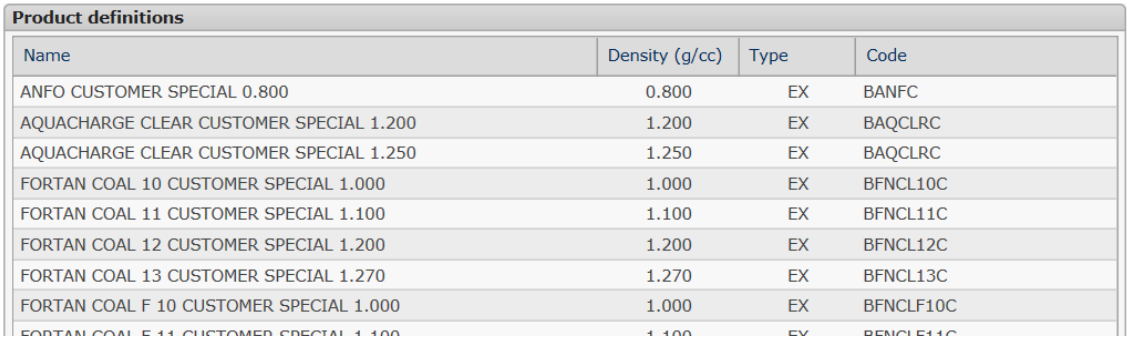
- The **LOADPlus site name**
- The **Data refresh time** in minutes

  Note: all LOADPLus sites are currently updated every 15 minutes
- **LOADPlus updates** (Active / Inactive)
- **Last update**: date and timestamp of last LOADPLus data update for this site
- **Last product update**: date and timestamp of last products list update for this site
- **System status**



The **Products definitions** area of the webpage shows a list of the products for use on that site. The fields listed are:

- **Name**
- **Density**
- **Type**
- SAP **Code**



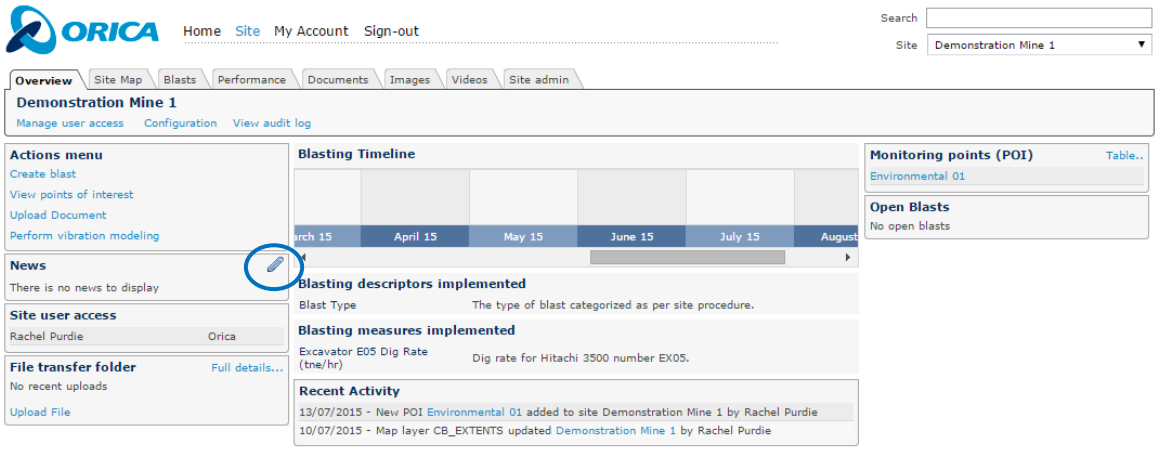
Product definitions

Name	Density (g/cc)	Type	Code
ANFO CUSTOMER SPECIAL 0.800	0.800	EX	BANFC
AQUACHARGE CLEAR CUSTOMER SPECIAL 1.200	1.200	EX	BAQCLRC
AQUACHARGE CLEAR CUSTOMER SPECIAL 1.250	1.250	EX	BAQCLRC
FORTAN COAL 10 CUSTOMER SPECIAL 1.000	1.000	EX	BFNCL10C
FORTAN COAL 11 CUSTOMER SPECIAL 1.100	1.100	EX	BFNCL11C
FORTAN COAL 12 CUSTOMER SPECIAL 1.200	1.200	EX	BFNCL12C
FORTAN COAL 13 CUSTOMER SPECIAL 1.270	1.270	EX	BFNCL13C
FORTAN COAL F 10 CUSTOMER SPECIAL 1.000	1.000	EX	BFNCLF10C

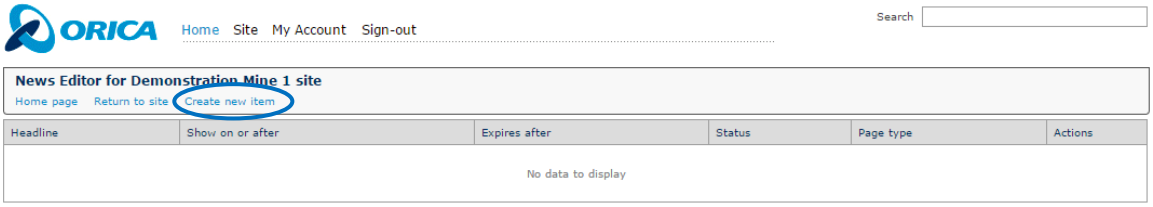
7.6 ADDING NEWS ARTICLES TO SITE PAGE

The following describes how to add news articles to the site overview page.

1. Select the edit icon under the **News** heading on the site overview page.



2. Select **Create new item** to post a news article on the site overview page.



3. The news article can be configured to appear after a certain date and expire after a certain date. It may also be set as a draft, meaning it will not be displayed to users until the **Draft** box is unticked. Select **Update** after details are entered.

4. News articles can be removed or edited at any time.

8 INSTALLING SHOTPLUS 5

Section Revision:	**0**	**Revision Date:**	**August 2015**

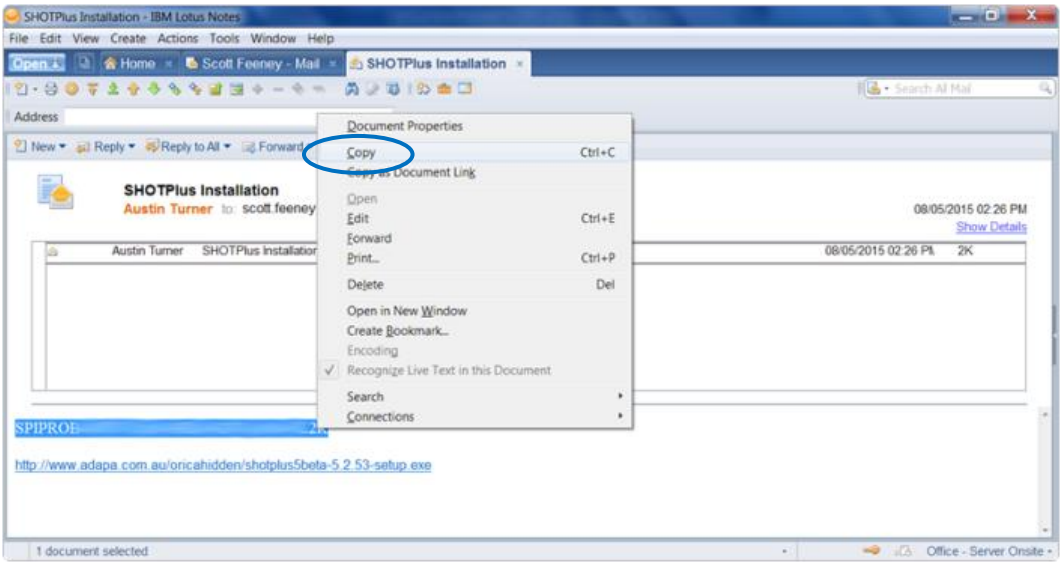
8.1 OVERVIEW

This section covers the installation process for SHOTPlus 5.

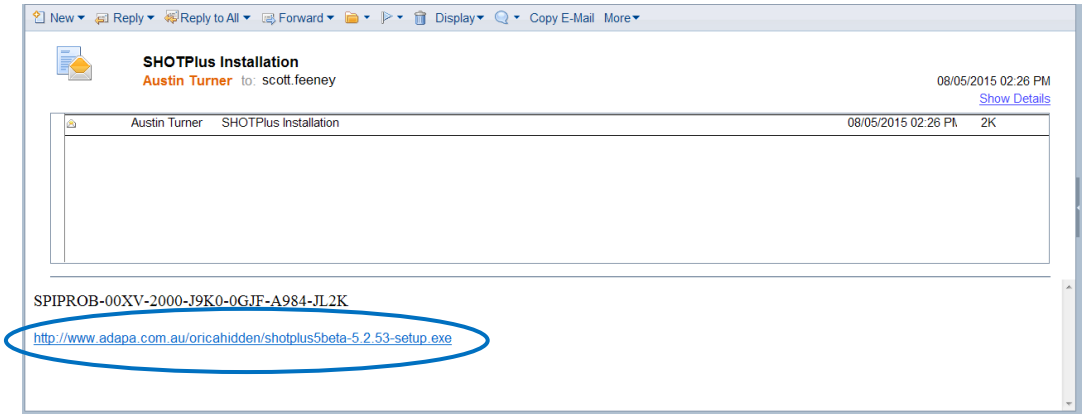
8.2 SHOTPLUS 5 LICENCE KEY

Prior to installation, external users are sent an email containing a link to download SHOTPlus 5, and their personal licence key.

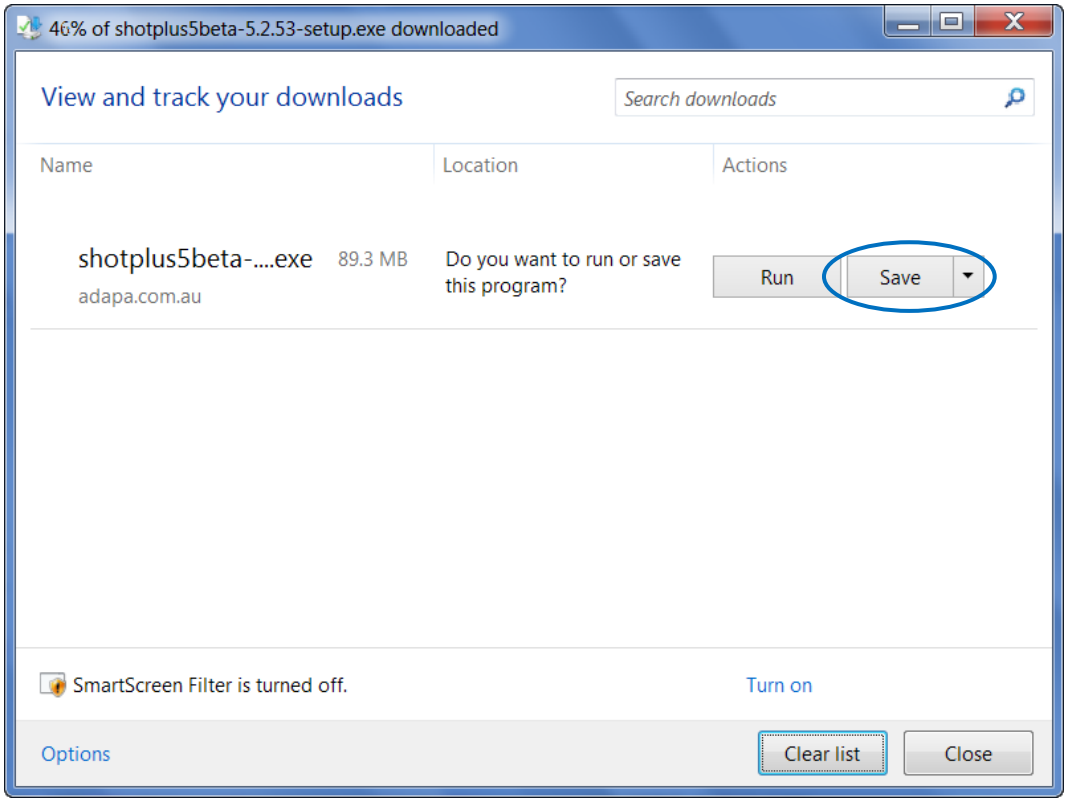
1. Copy the personal licence key to the clipboard.



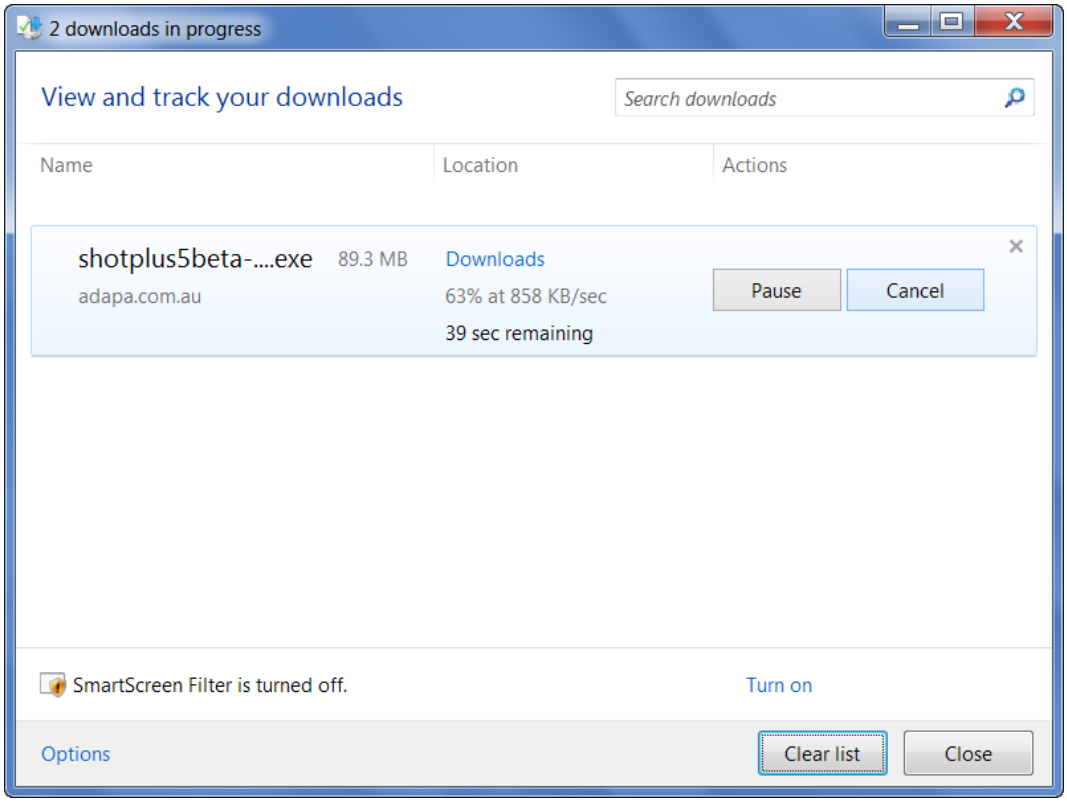
2. Click on the link to begin downloading SHOTPlus 5.



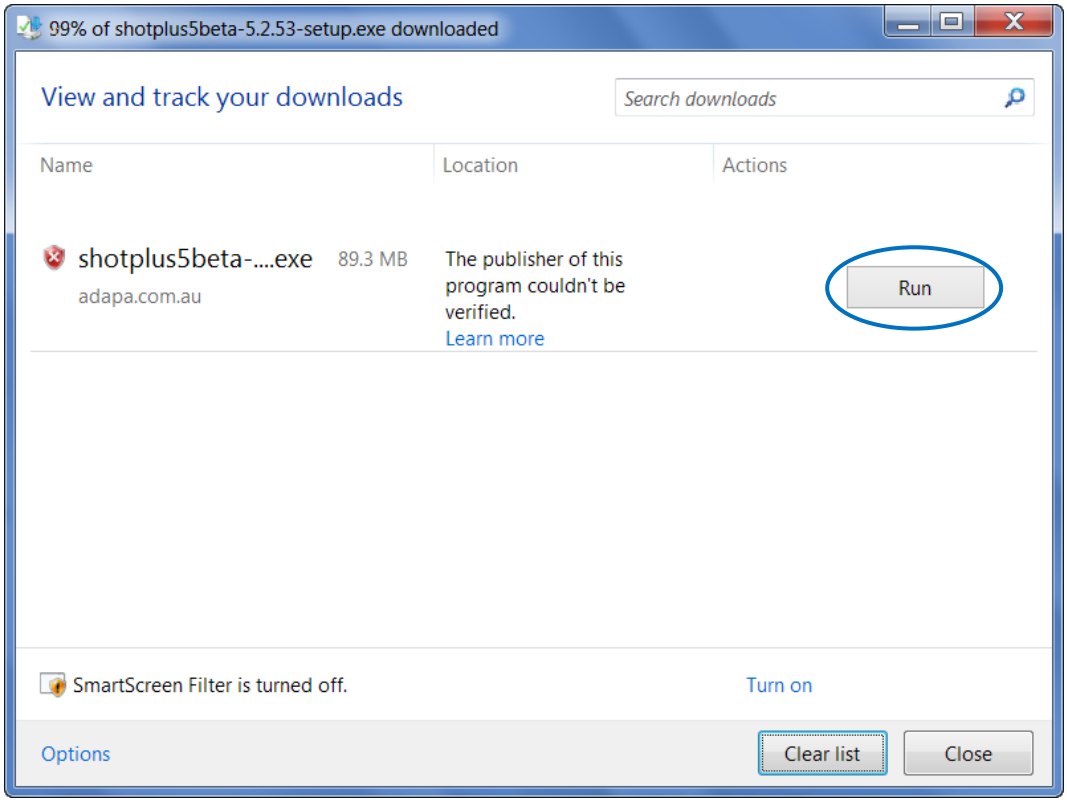
3. Select **Save**.



The SHOTPlus 5 software will be downloaded to the computer.



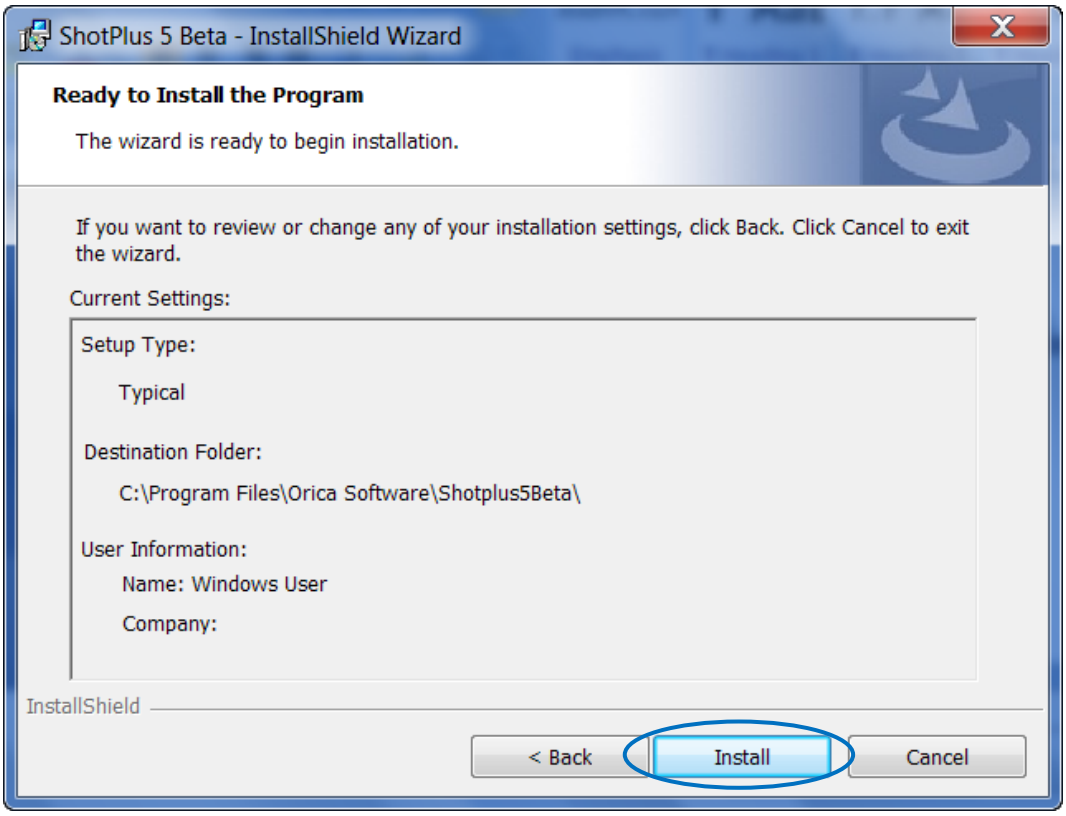
4. Select **Run**.



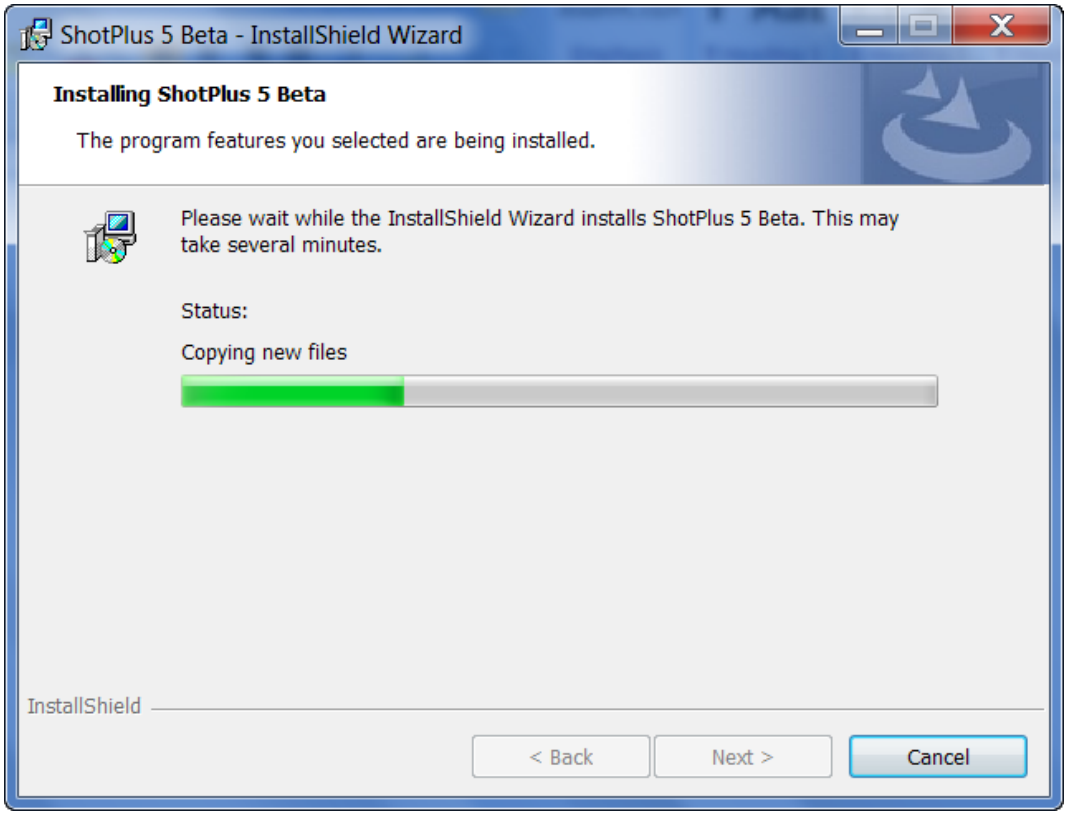
At this stage, you may be prompted with a “User Account Control” message. Select **Yes**. InstallShield Wizard starts the installation process.

5. Select **Next**.

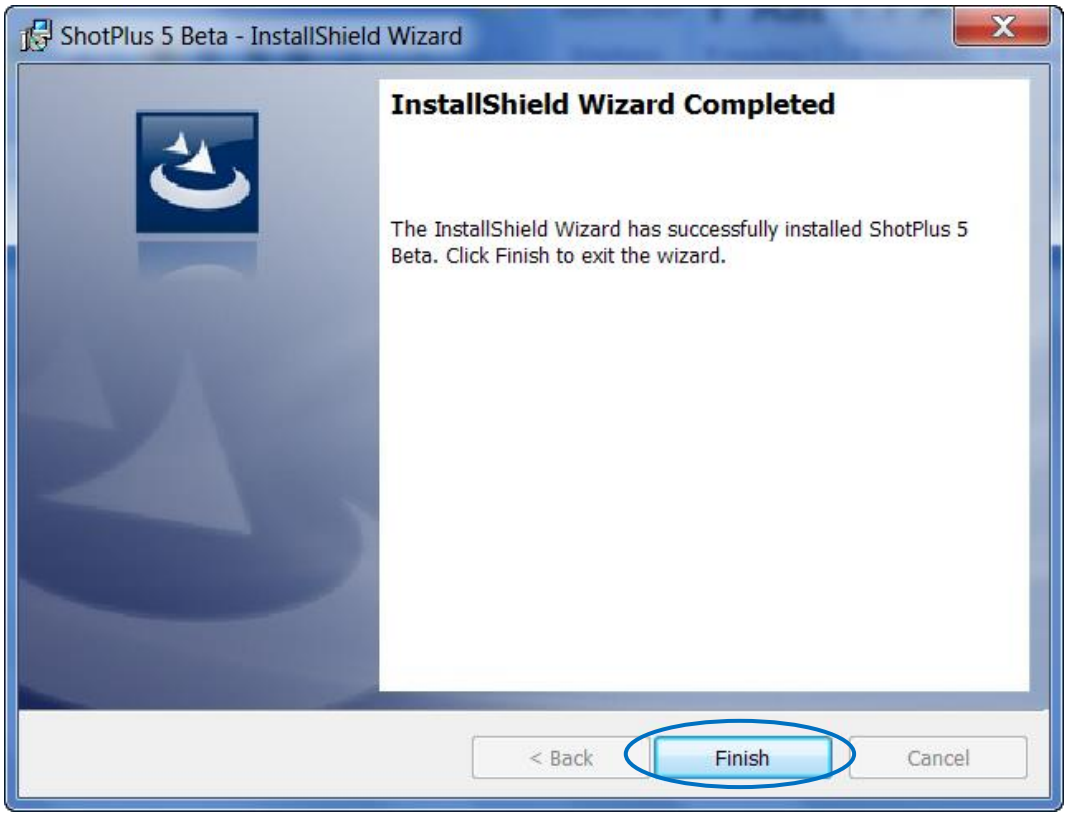
6. Select **Install**.



InstallShield Wizard continues the installation process.



7. Select **Finish**.

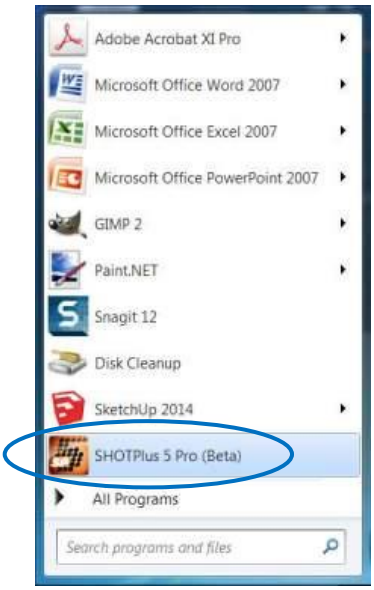


8.3 FIRST TIME USING SHOTPLUS 5

The first time after opening SHOTPlus 5, the user will be prompted with a language selection choice, application registration and activation entries, as well as any possible modifications required to be made to the network settings to allow successful communication and use.

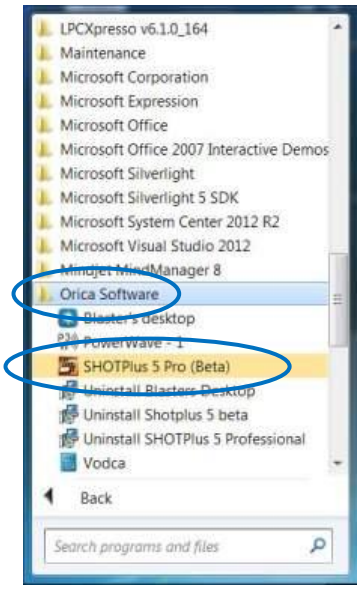
SHOTPlus 5 can be opened using the Start Menu.

1. Select **Start** / **SHOTPlus 5**.

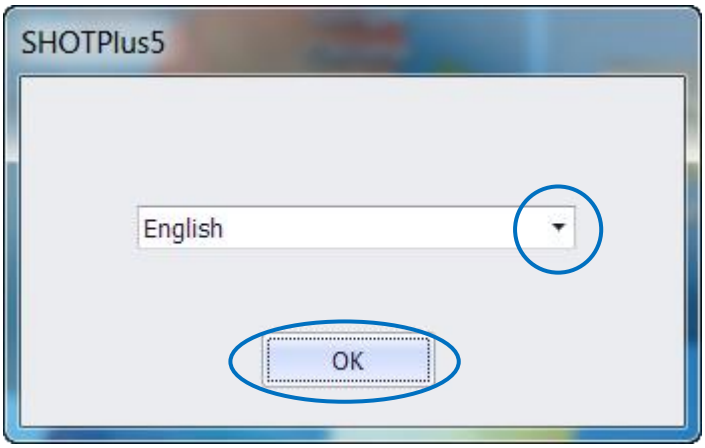


Alternatively, it may be opened using the menu tree.

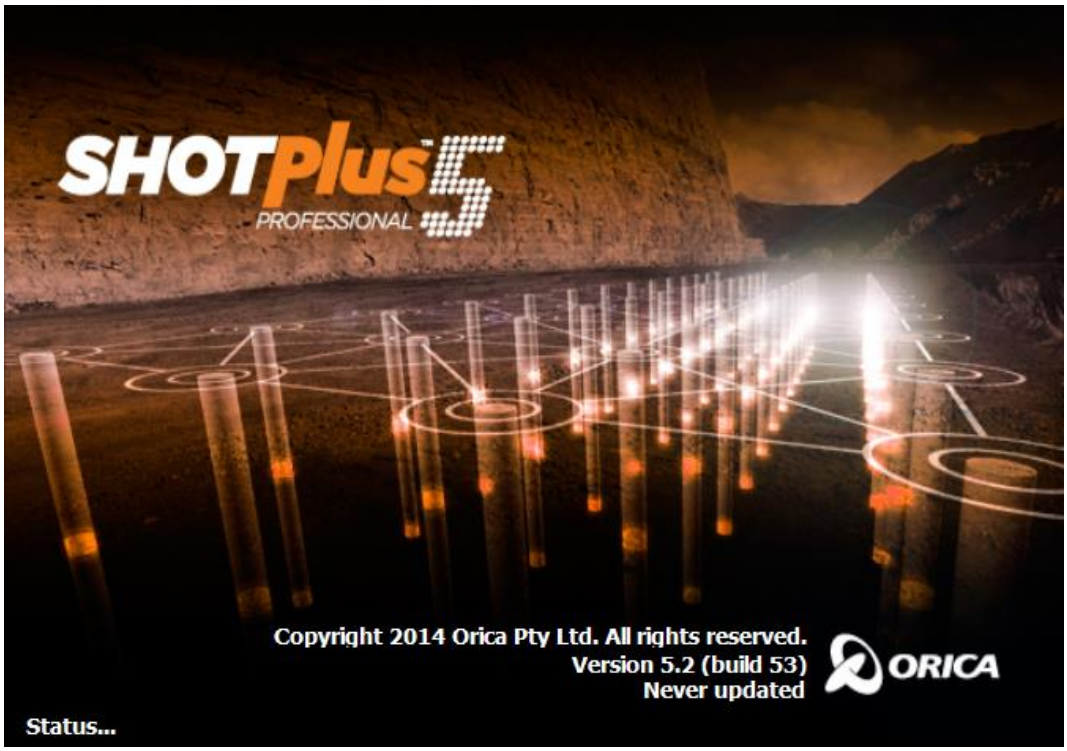
1. Select **Start** / **All Programs** / **Orica Software** / **SHOTPlus 5**.



2. Select required language using the drop down selector.
3. Select **OK**.

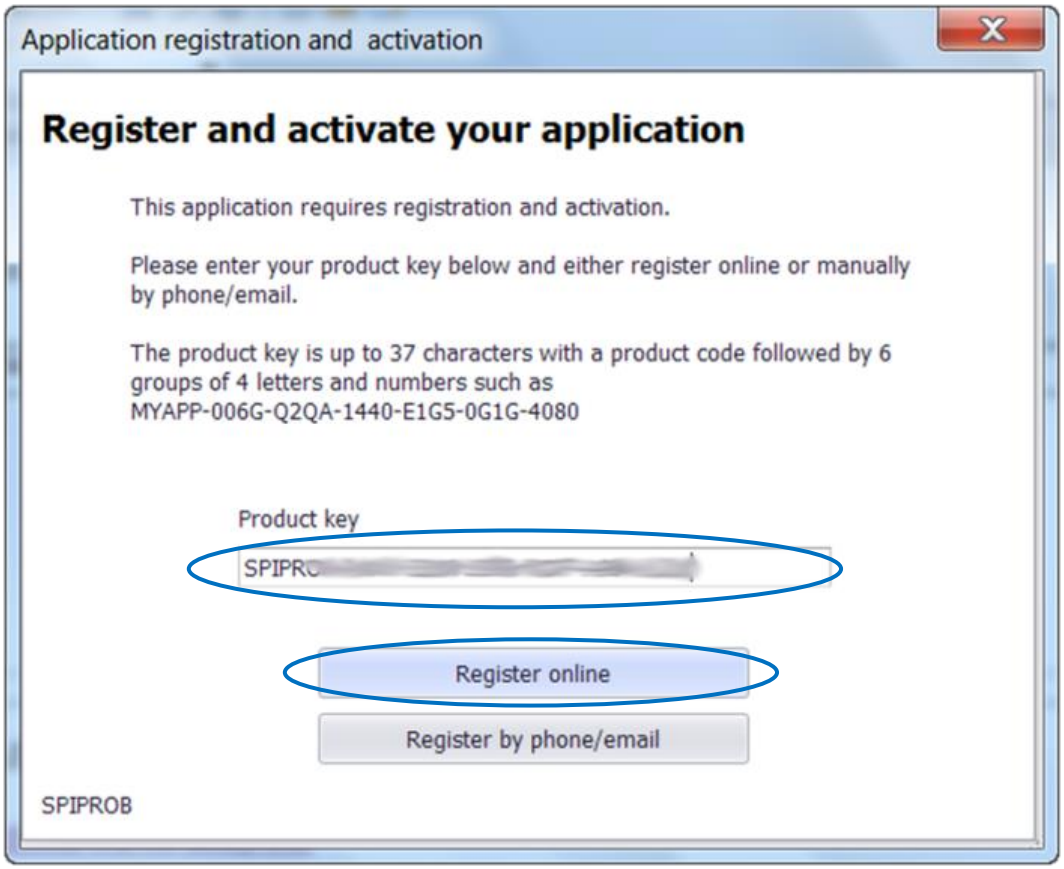


SHOTPlus 5 displays its Startup screen.



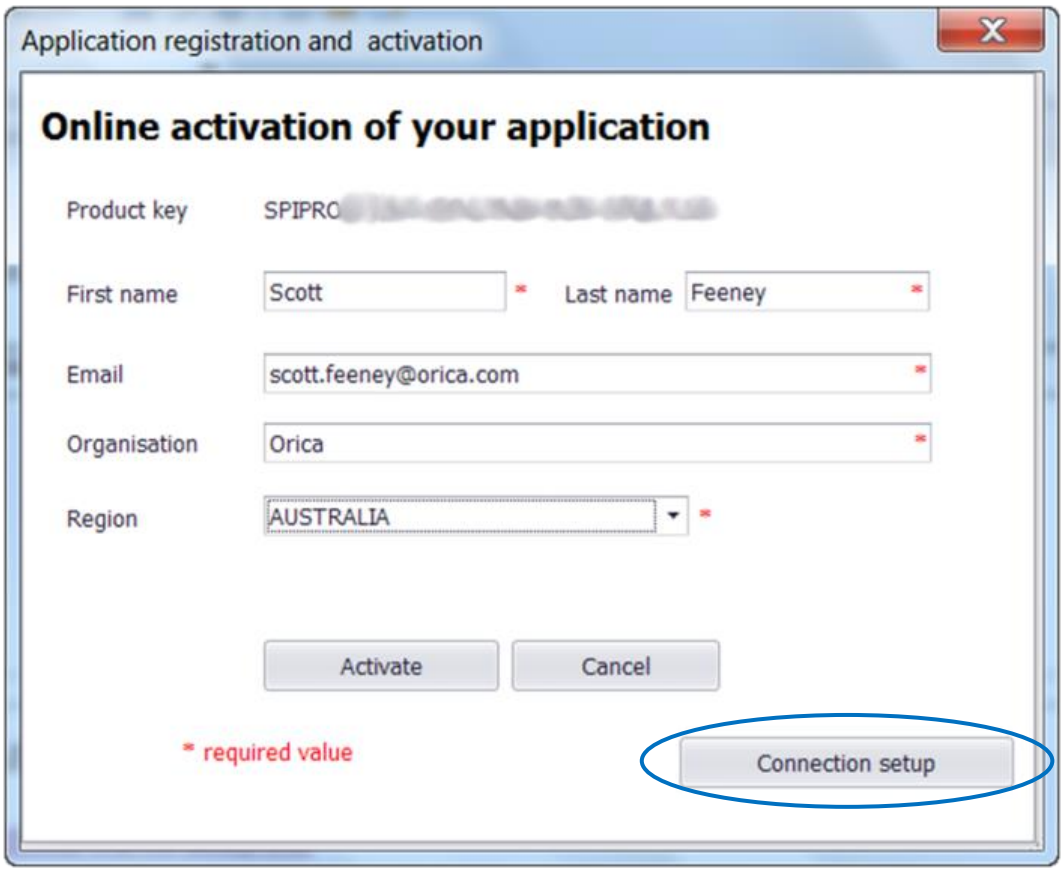
The *Application registration and activation* window is displayed.

8. Enter the personal licence key (previously copied to the clipboard) in the **Product key** field.
9. Select **Register online**.

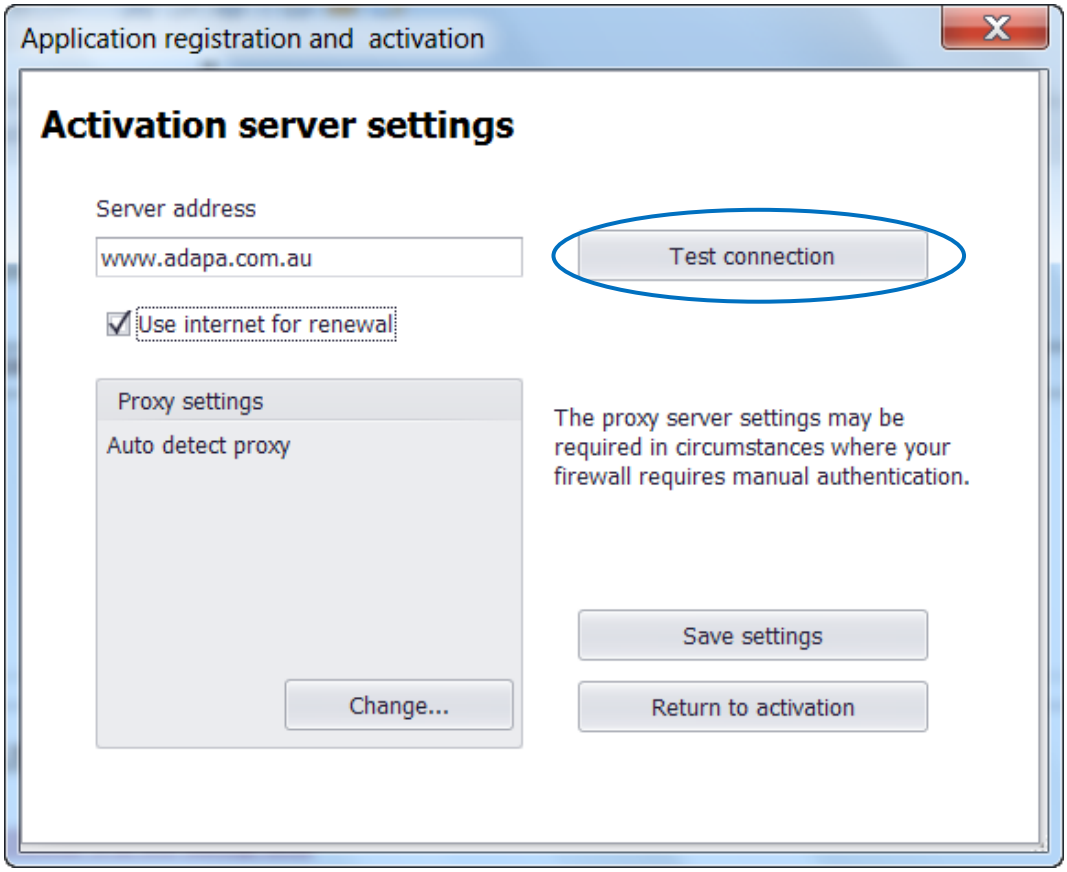


Many companies use proxy servers, you may need to modify internet settings to be able to access and use SHOTPlus 5.

4. Select **Connection setup**.



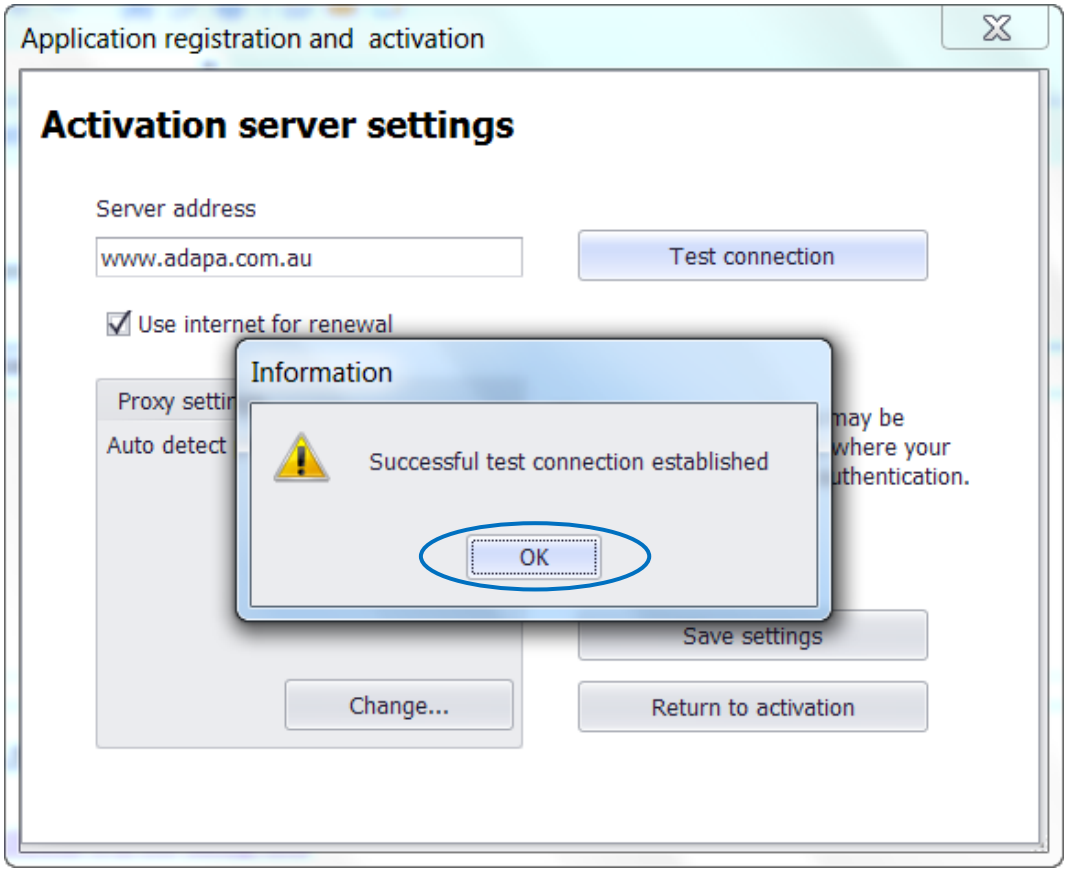
5. Select **Test connection**.



An *Information* window containing the test result will be displayed.

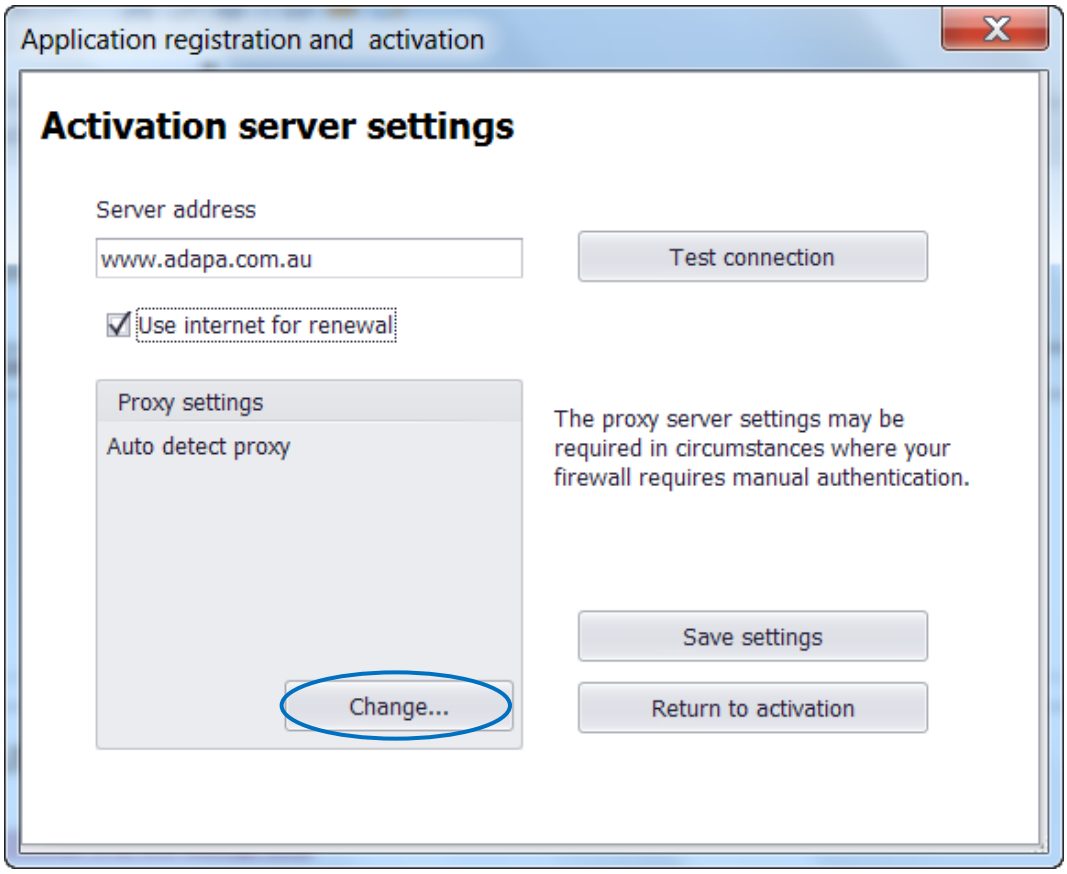
If *Successful test connection established* is shown:

6. Select **OK**.
7. Go to Step 12.



If the connection test failed:

8. Select **Change**.

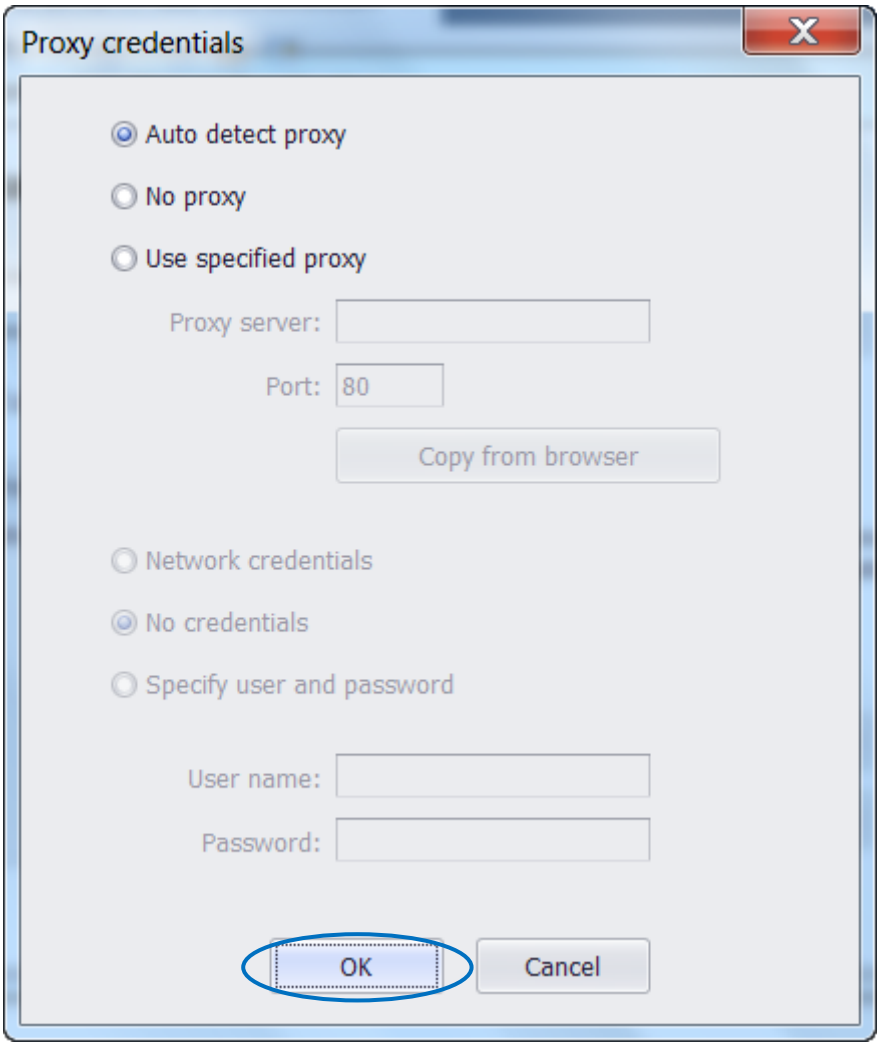


On some systems, proxy settings may require setting or modifying.

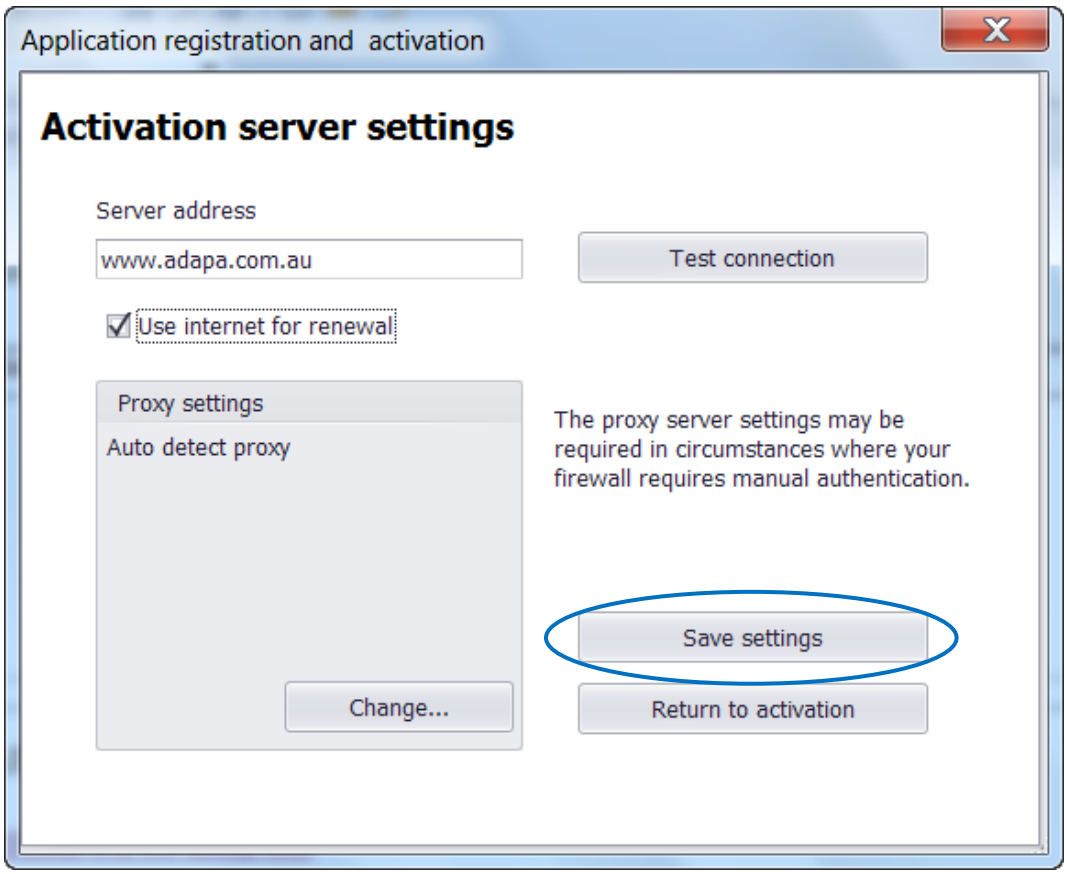
Contact your company's IT Administrator for help setting these.

Once these changes have been made:

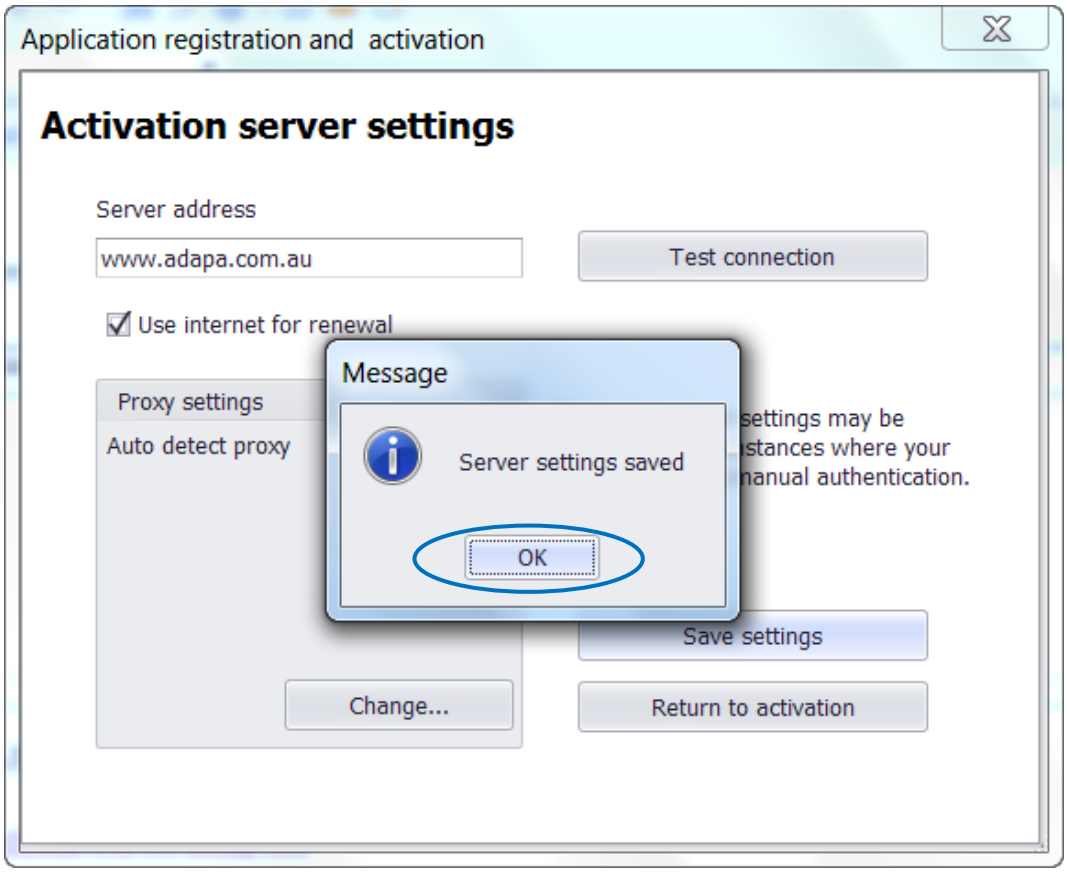
9. Select **OK**.



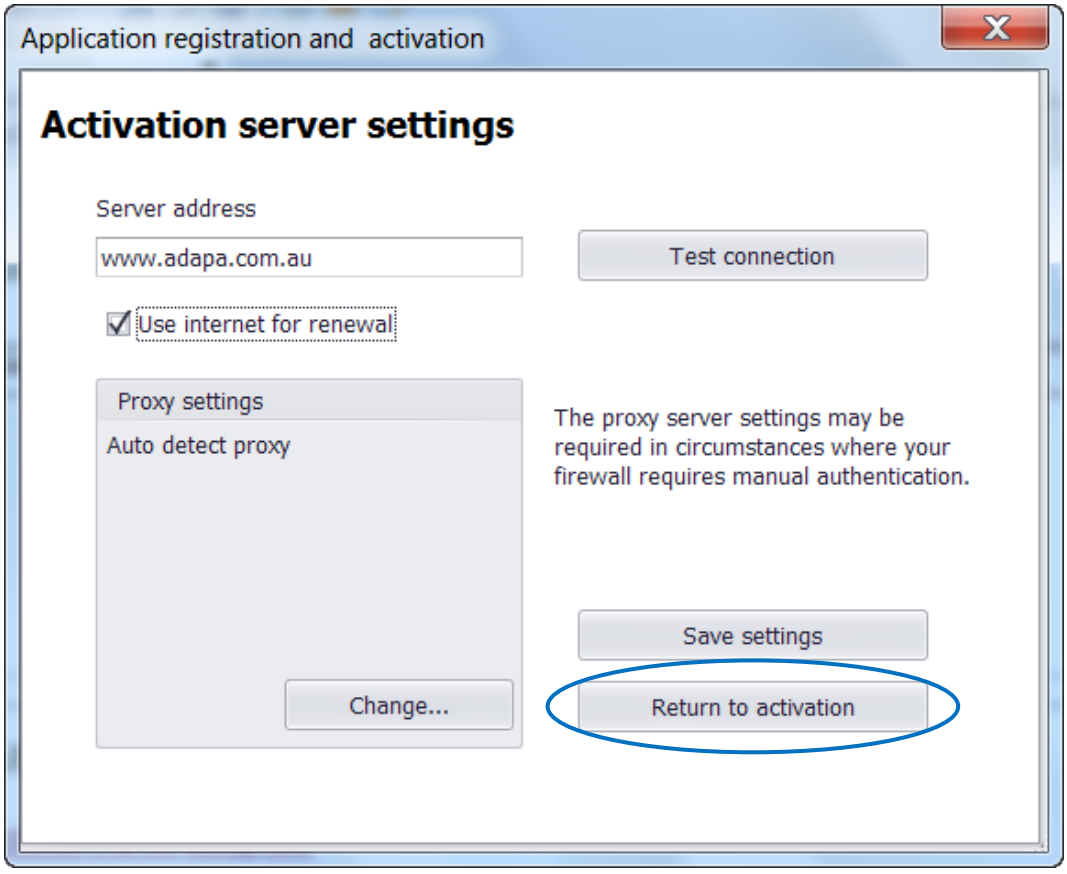
8. Select **Save settings**.



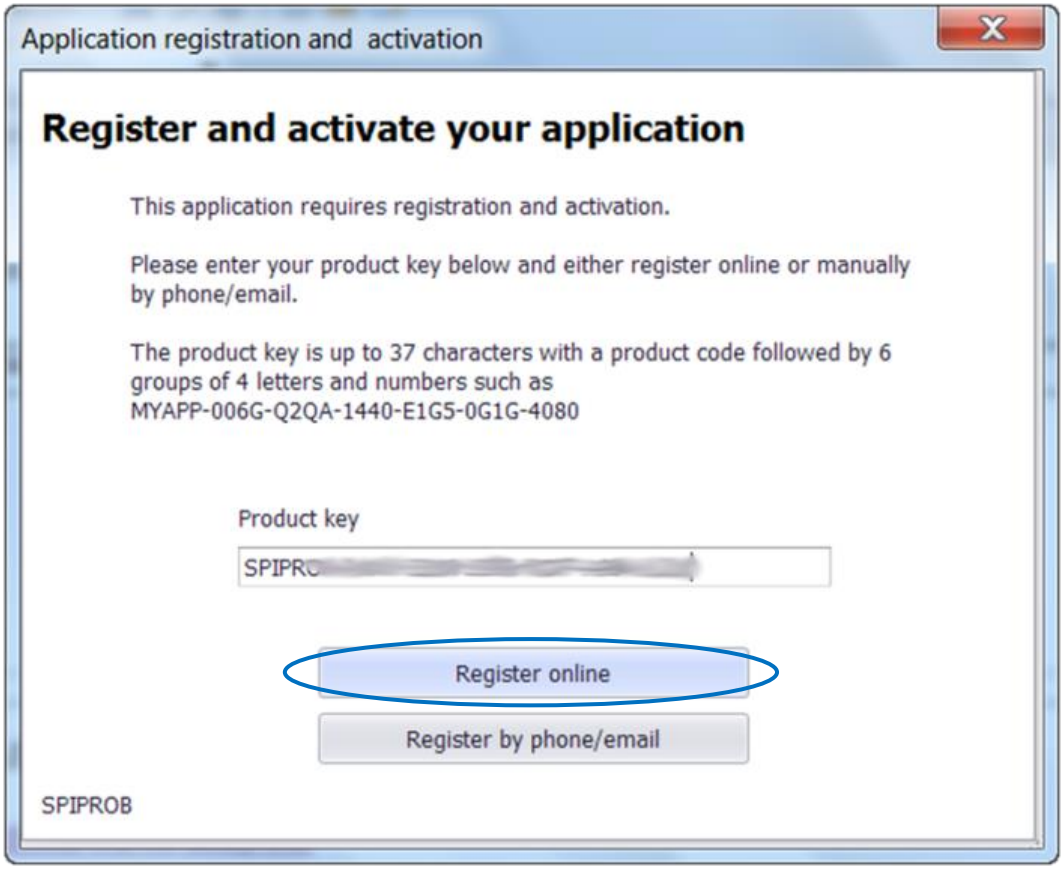
9. Select **OK**.



10. Select **Return to activation**.

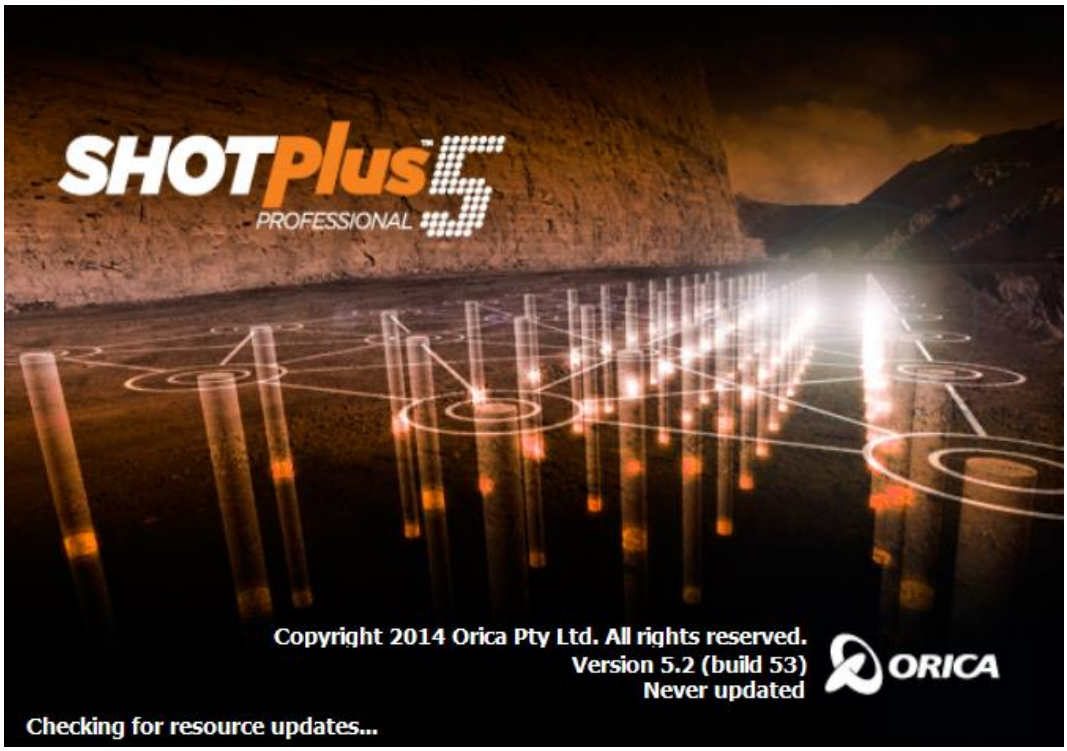


11. Select **Register online**.



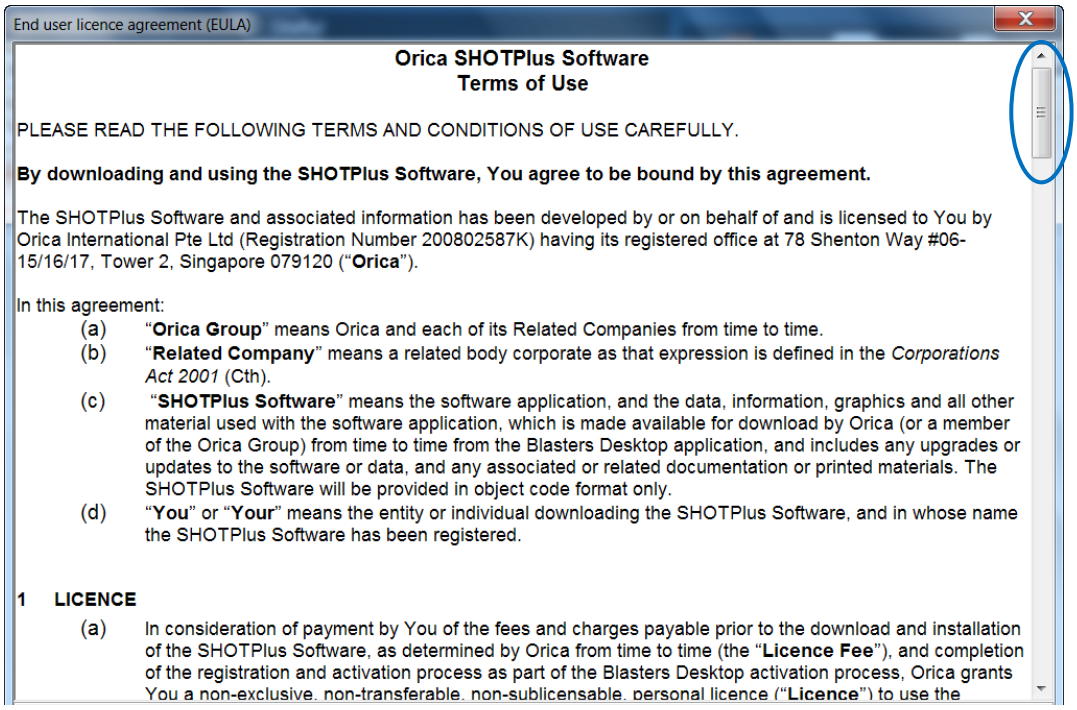
12. Select **Activate** (when prompted).

The SHOTPlus 5 Start up screen displays.

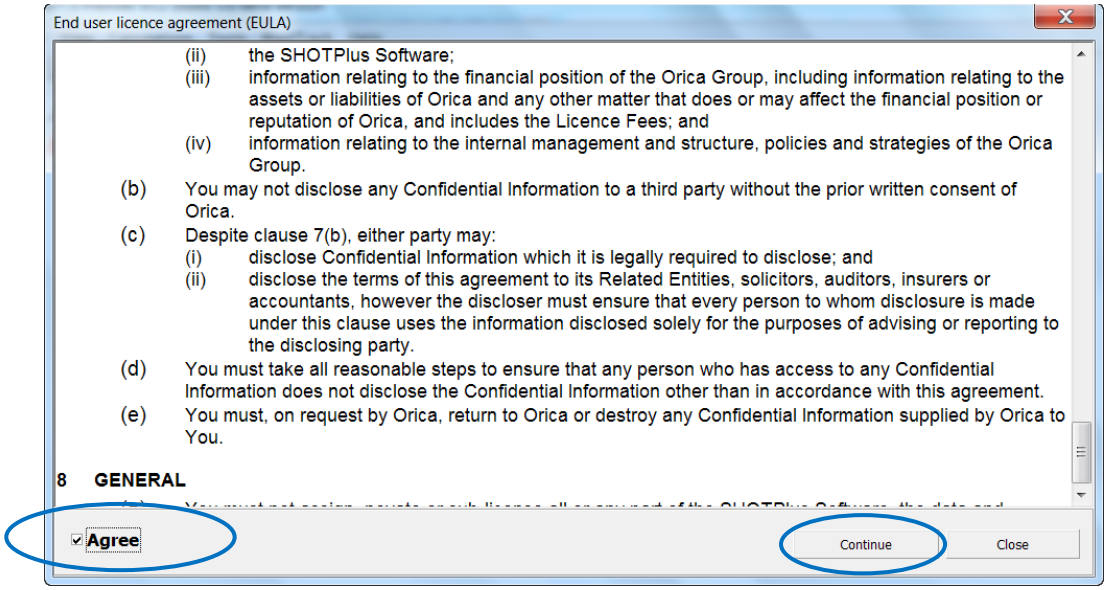


As this is the first time using the SHOTPlus software, the Orica *SHOTPlus Software Terms of Use* must be accepted.

13. Scroll to the bottom of the agreement using the scroll bar.



14. Place a tick in the **Agree** field.
15. Select **Continue**.



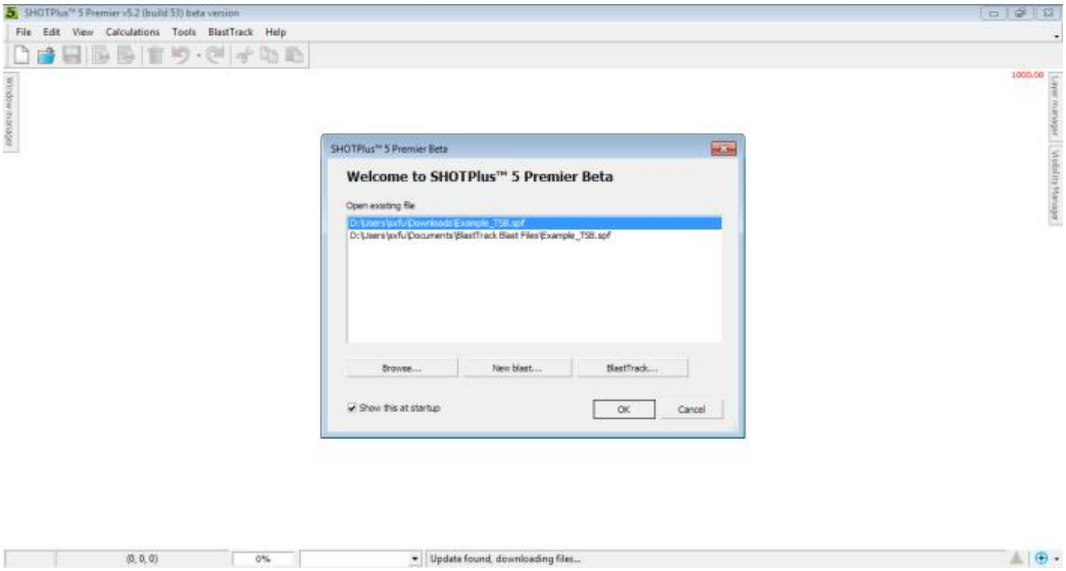
The SHOTPlus 5 home screen, including the Start-up Assistant, is displayed.

If an existing file is required:

16. Select the file by clicking it once.
17. Select **OK**.

If a new file is being created:

18. Select **Cancel**.

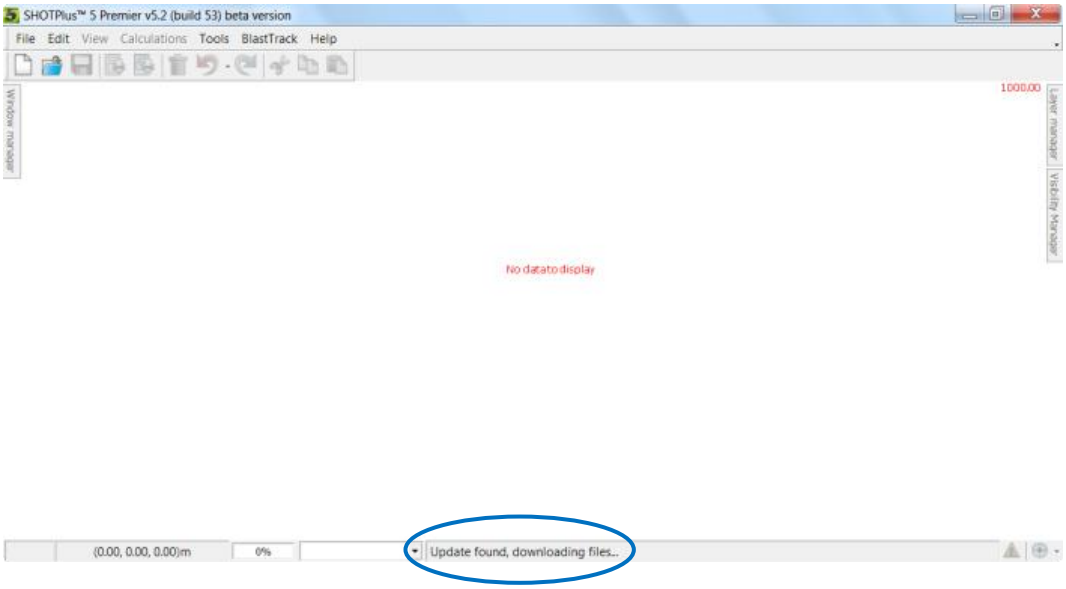


8.4 INSTALLING SHOTPLUS 5 UPDATES

To keep performing at its optimum and to incorporate new features, software is periodically updated.

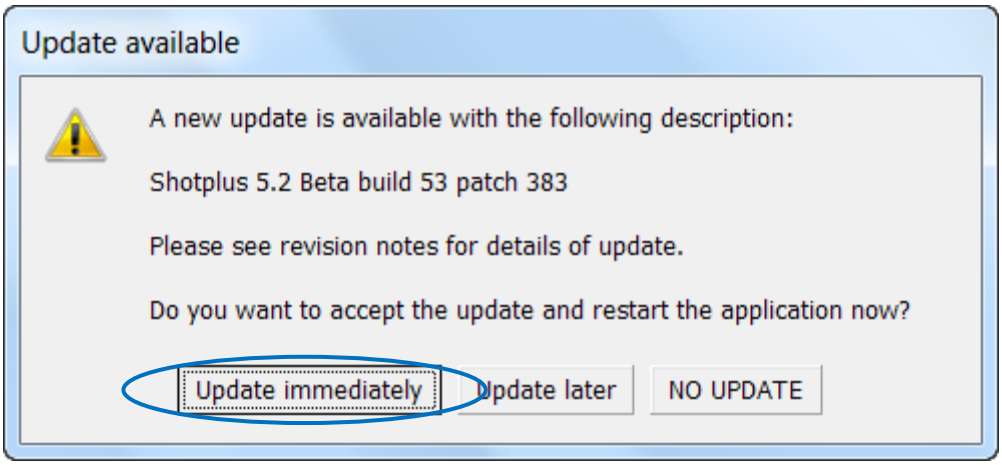
Occasionally, when opening SHOTPlus 5, you will observe the following message:

Update found, downloading files…



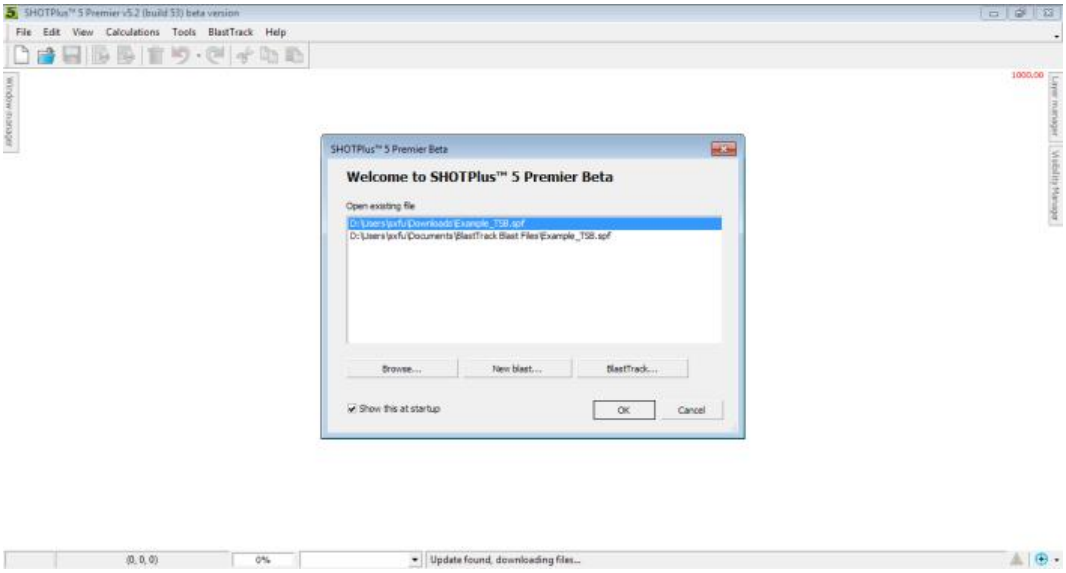
After the update files are downloaded, the user is provided the following choice:

Update immediately	Close and restart SHOTPlus 5
Update later	Continue working, new version will be installed when you close and re-open SHOTPlus 5
No update	Not recommended. This selection prevents the new version from being installed



When the user account control pop up appears for *updateandrestart.exe*, select **Yes**. SHOTPlus 5 will then close and reopen. If you receive errors at this time, you may not have sufficient administrator access. Please contact your IT department.

The SHOTPlus 5 home screen, including the Start-up Assistant, is displayed.



9 USING SHOTPLUS 5 WITH BLASTIQ

Section Revision:	**0**	**Revision Date:**	**August 2015**

9.1 OVERVIEW

There are currently two methods available for connecting to the BlastIQ system when using SHOTPlus 5, upon *Startup* and *In-use*.

9.2 CONNECTING TO BLASTIQ USING SHOTPLUS 5

To connect to BlastIQ from within SHOTPlus 5, you must have already set up your BlastIQ account. Please see 4.3 INSTALLING BLASTIQ for further information.

The BlastIQ menu available on the SHOTPlus 5 toolbar will allow you to perform all the SHOTPlus 5 actions associated with BlastIQ.

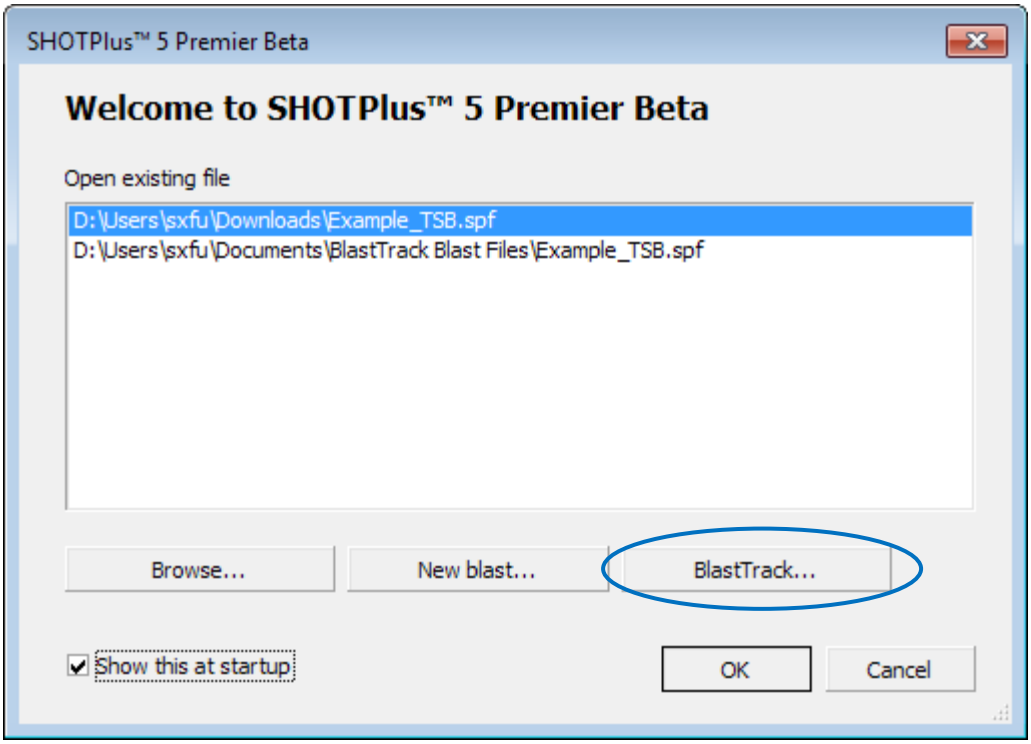
9.2.1 Connecting to BlastIQ at SHOTPlus 5 Startup

1. Open SHOTPlus 5.

The Startup Assistant will appear.

Blasting files already loaded on the BlastIQ system may be selected from BlastIQ.

2. Select **BlastTrack…**.

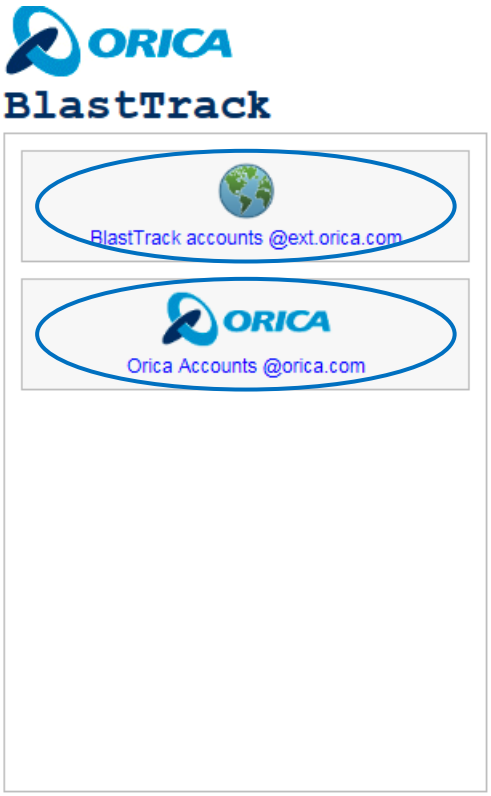


The Select login provider window will appear.

3. Select **BlastTrack accounts @ext.orica.com** if you're an Orica customer

   or

   Select **Orica Account** if you're an Orica employee

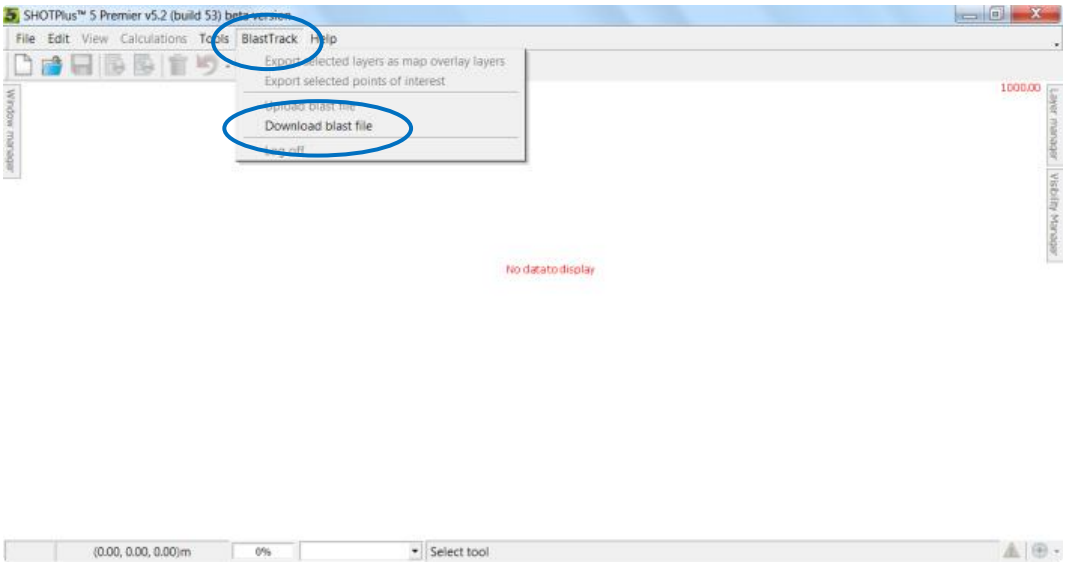


Continue from *Connecting to BlastIQ When SHOTPlus 5 is In-use* Step 4.

9.2.2 Connecting to BlastIQ When SHOTPlus 5 is In-use

If SHOTPlus 5 is already in-use and the user wants to work on a file from BlastIQ, it can be downloaded in the following manner.

1. Go to the SHOTPlus 5 main screen.
2. Select **BlastTrack** / **Download blast file**.



The Select login provider window will appear.

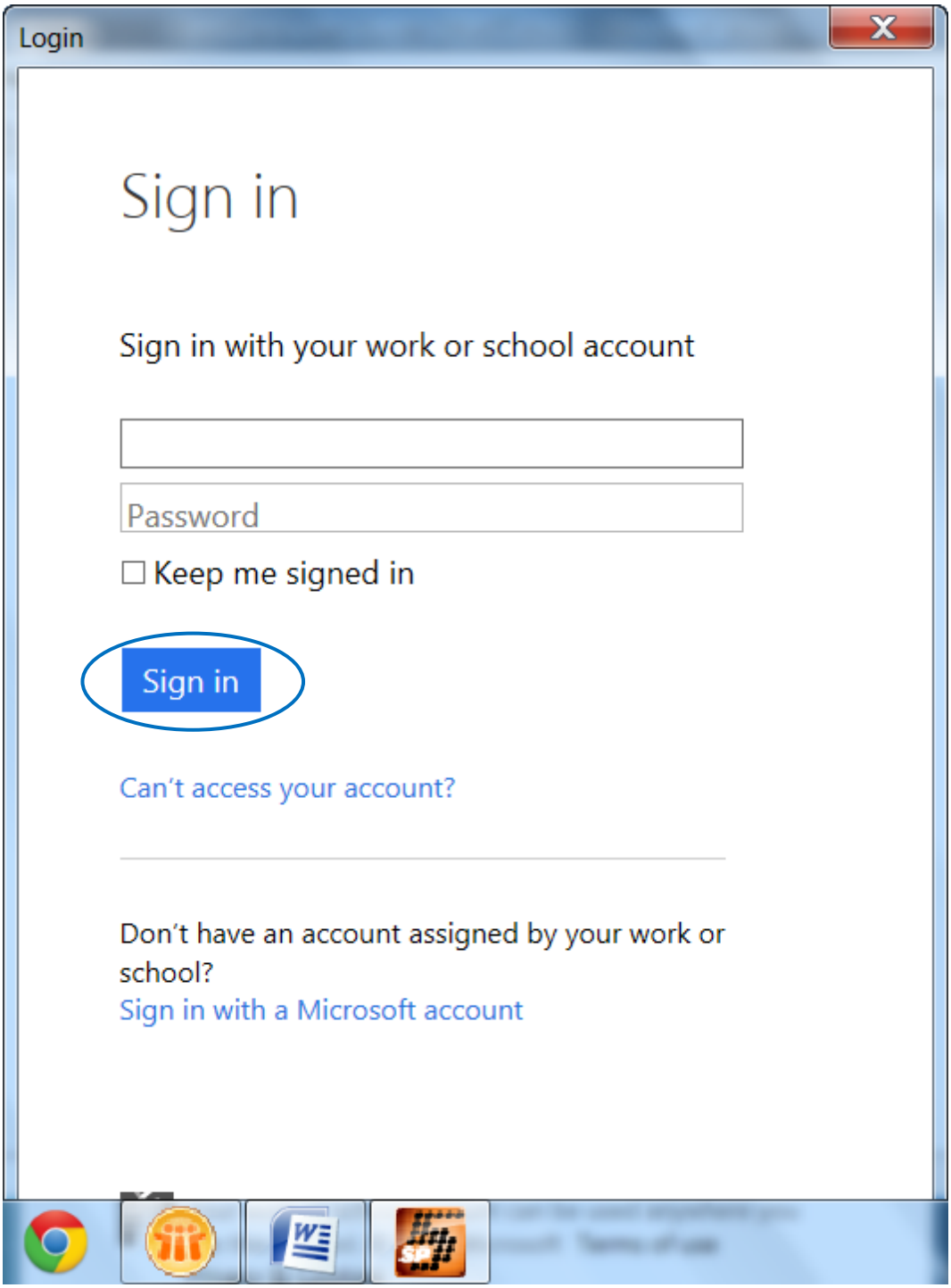
3. Select **BlastTrack accounts @ext.orica.com** if you're an Orica customer

   or

   Select **Orica Account** if you're an Orica employee

The *Select login provider* window will be displayed when accessing BlastIQ from all other BlastIQ compatible systems.

4. Enter your *username* and *password*.
5. Select **Sign in**.



You'll be presented with a download screen

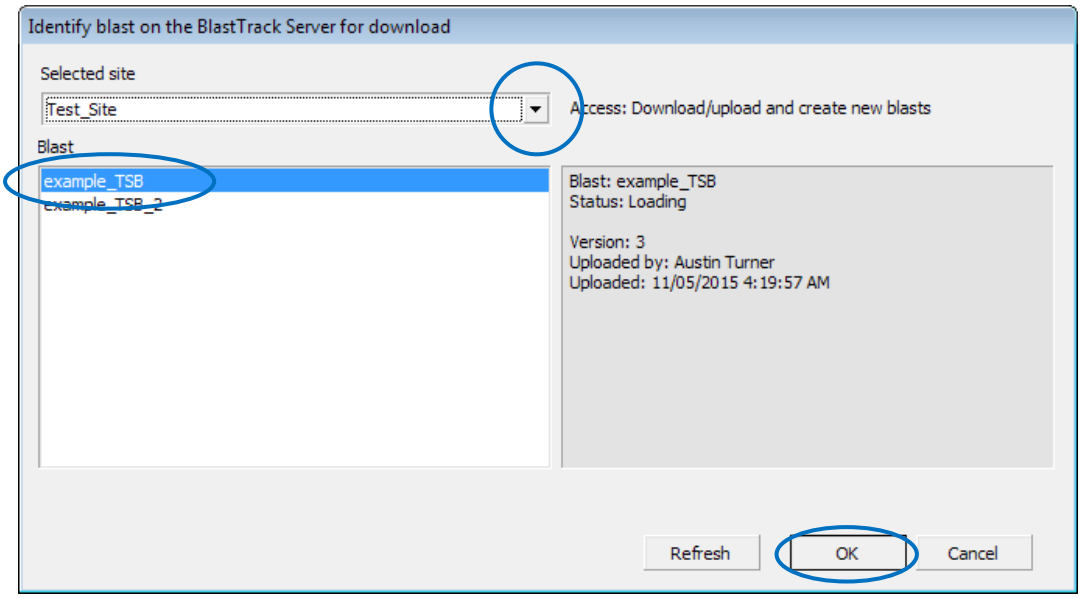
6. From the drop down menu, select the site.

After selecting the site, the available blast files are listed under *Blast*.

7. Preview each blast file by clicking on it once.
8. Information about the blast file will be shown in the box to the right.

When the blast being displayed is the required file:

9. Select **OK**.



After selecting OK, a ‘save’ window will appear.

This part of the process is creating a local copy of the blast file to work on. To ensure that the BlastIQ file versioning works correctly, you should not change the name of the file.

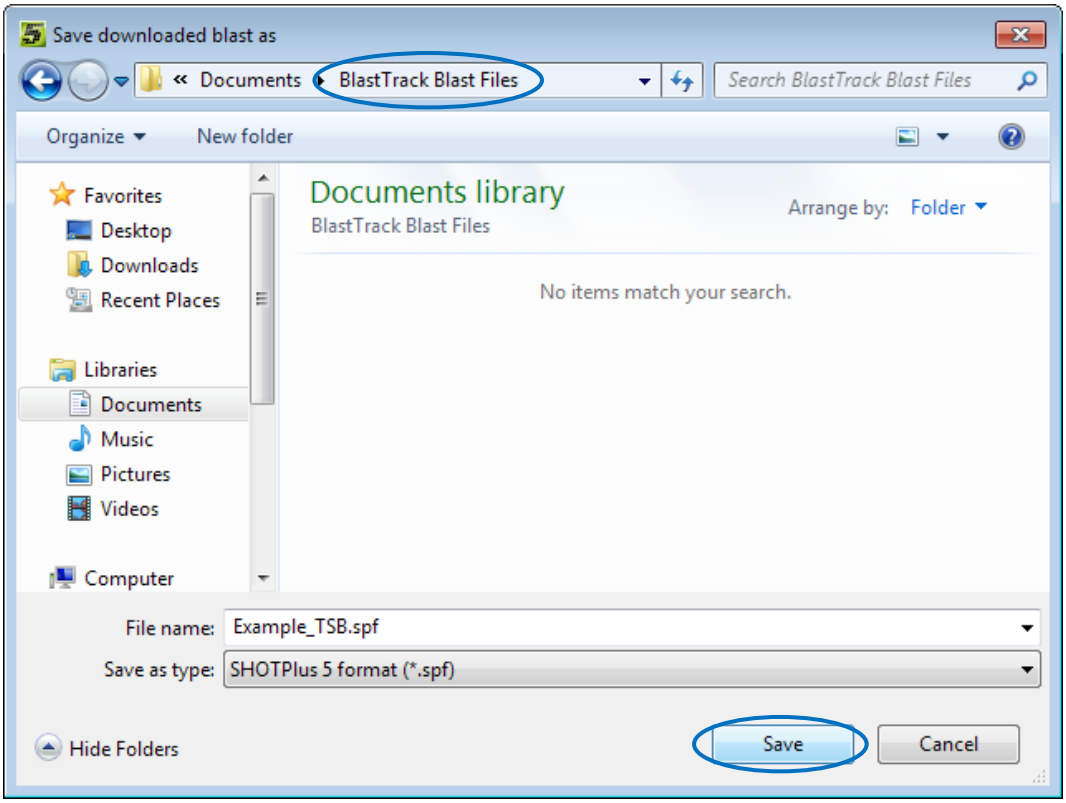
Each time a blast file is uploaded to BlastIQ, the previous version of the file is archived and replaced by the version being uploaded. This allows all users access to the latest file. All archived versions are available for download. This process will be explained further on.

The user is prompted with where to save the file on the computer’s local drive.

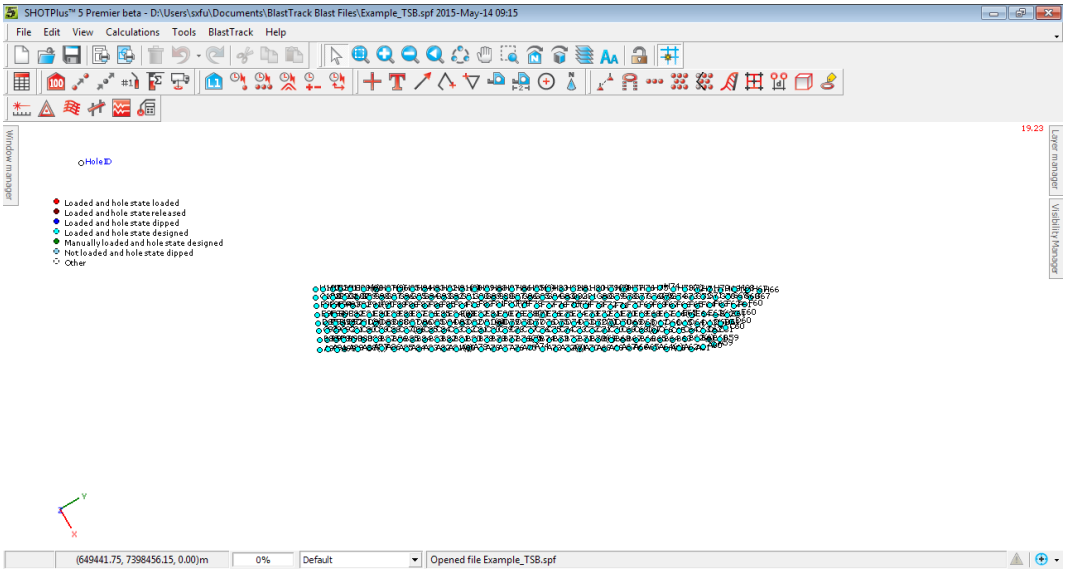
10. Select an appropriate location to save the blast file.

Remember to let the BlastIQ system manage the file versioning; always save the file using the same file name. When prompted to ‘Replace existing file’, select OK.

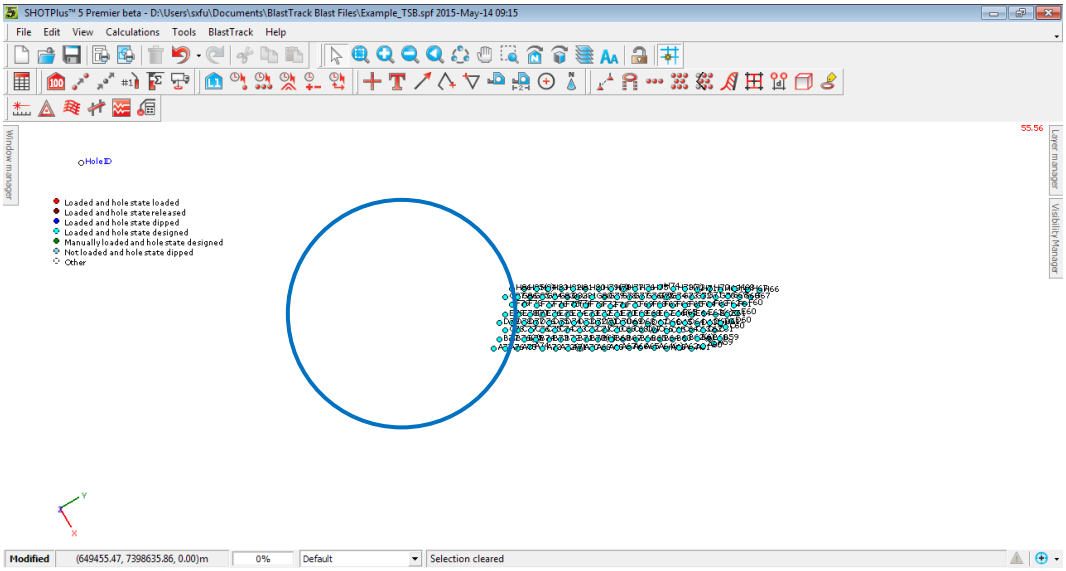
11. Select **Save**.



The SHOTPlus 5 blast file is now available for viewing or modification.

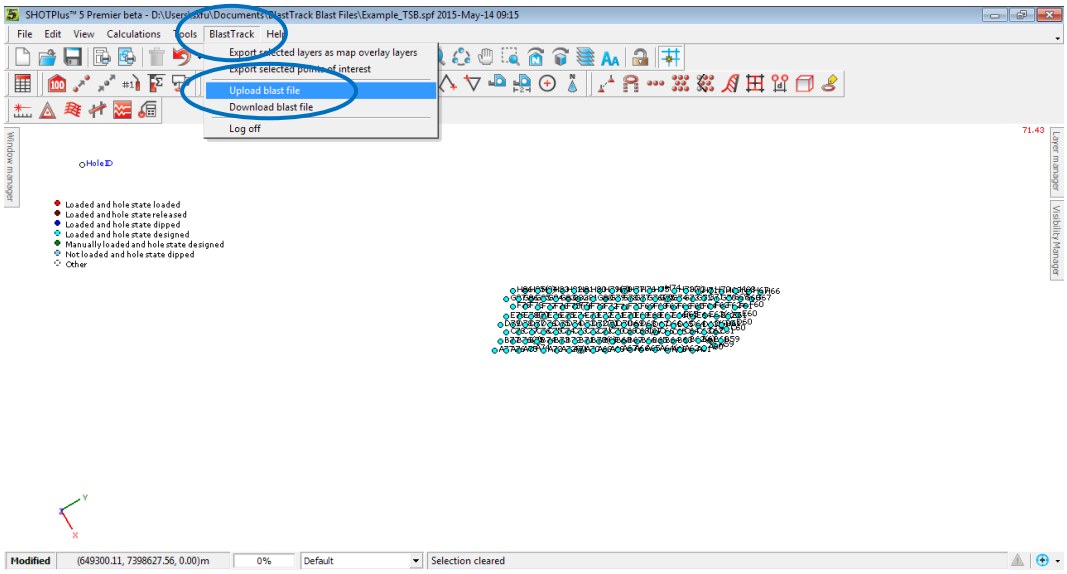


For the purpose of this guide, the quantity of holes has been reduced to demonstrate a change being made.



After completing any changes you should upload the blast file to BlastIQ for these changes to become available to other users.

12. Select **BlastTrack** / **Upload blast file**.

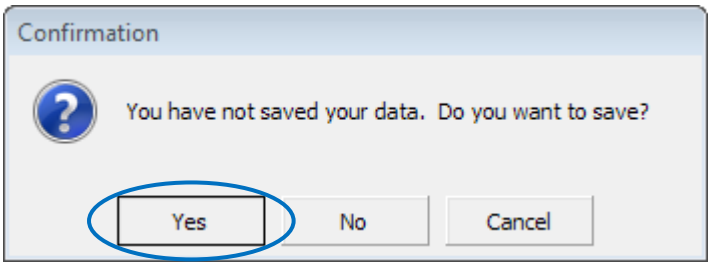


At this time, the user is provided with a *Confirmation* window.

Selecting *Yes* saves your changes to your local copy before uploading.

Selecting *No* will allow you to upload without saving the changes locally.

13. Select **Yes** / **No**.



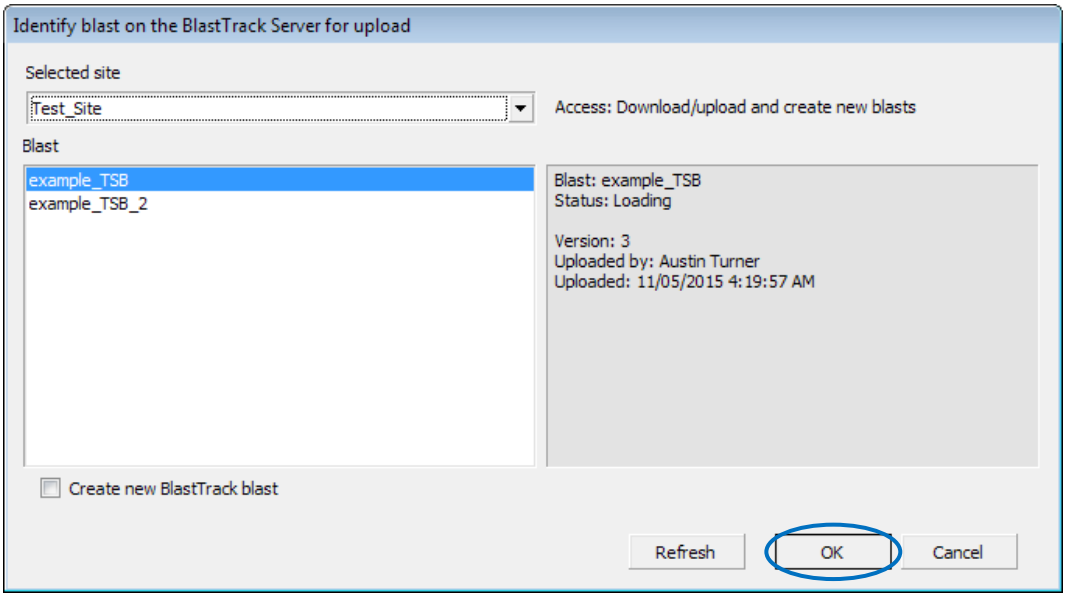
If the blast file has been saved in BlastIQ previously, the system will prompt the user to select the blast to upload the file to.

If the blast file is being saved for the first time, a different process will occur. See 9.3 Creating a New BlastIQ Blast File Using SHOTPlus 5.

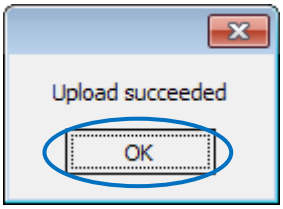
The *Upload* window is displayed.

The BlastIQ system will auto-populate the *Selected site* and *Blast* fields.

14. Confirm the *Selected site* and *Blast* fields are correct
15. Select **OK**.



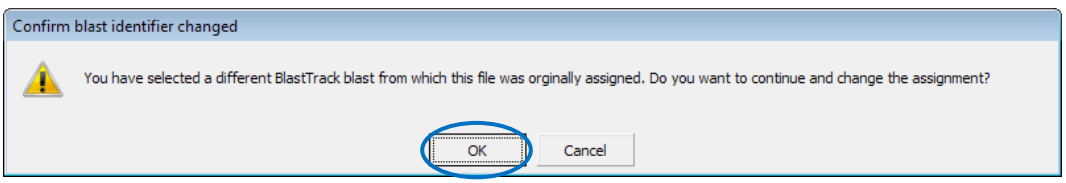
Successful upload is shown by:



16. Select **OK**.

When uploading a blast file, BlastIQ detects if the file is from a different BlastIQ blast and will prompt the user to confirm that this file should be loaded in this location.

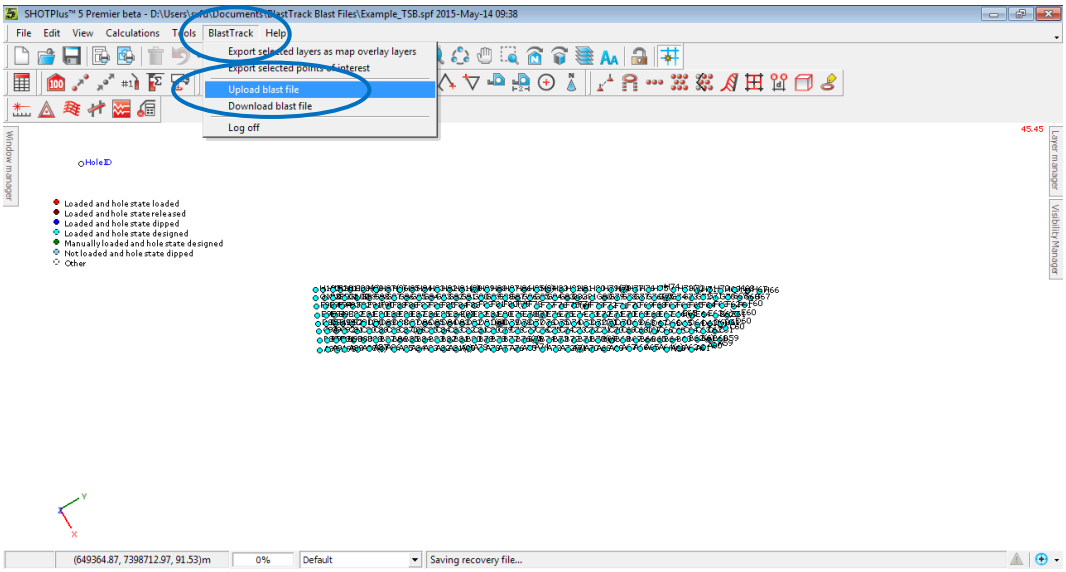
17. If this is your intention, select **OK**.



9.3 CREATING A NEW BLASTIQ BLAST FILE USING SHOTPLUS 5

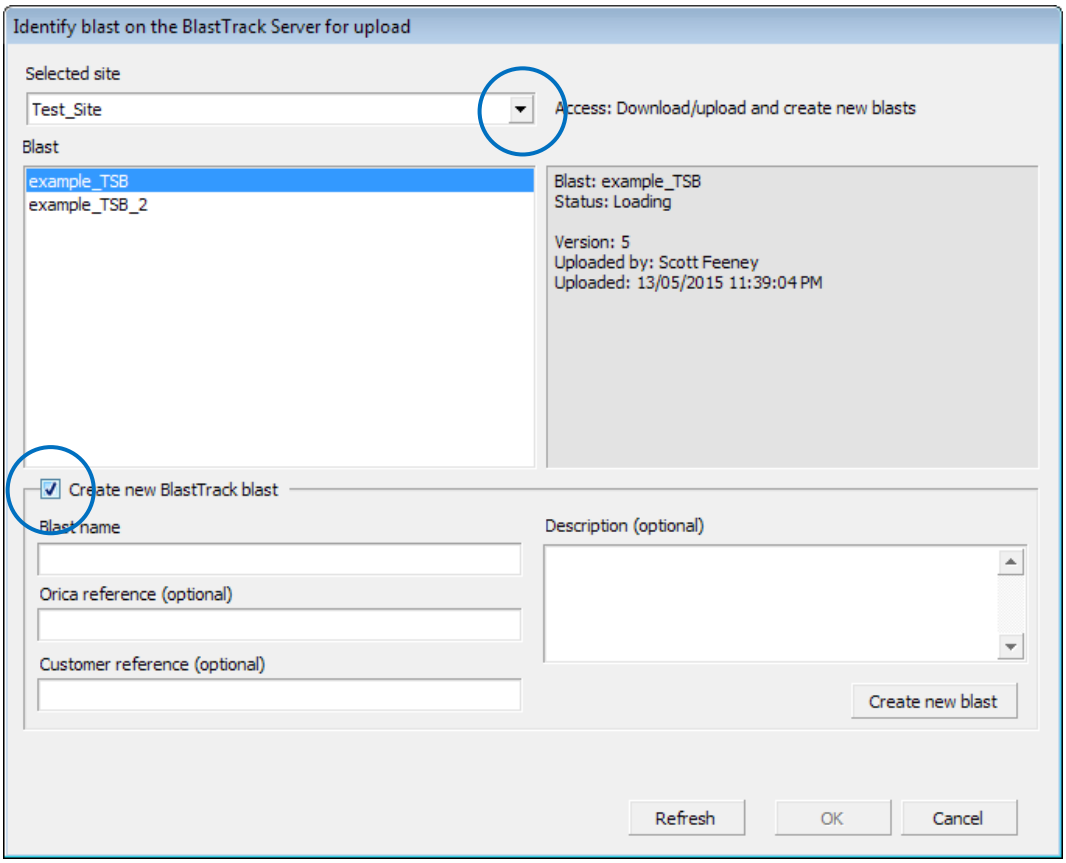
When a new blast is designed in SHOTPlus 5, a new blast file must be created in BlastIQ.

1. Create the new file using SHOTPlus 5.
2. Select **BlastTrack** / **Upload blast file**.



The *Upload* window is displayed.

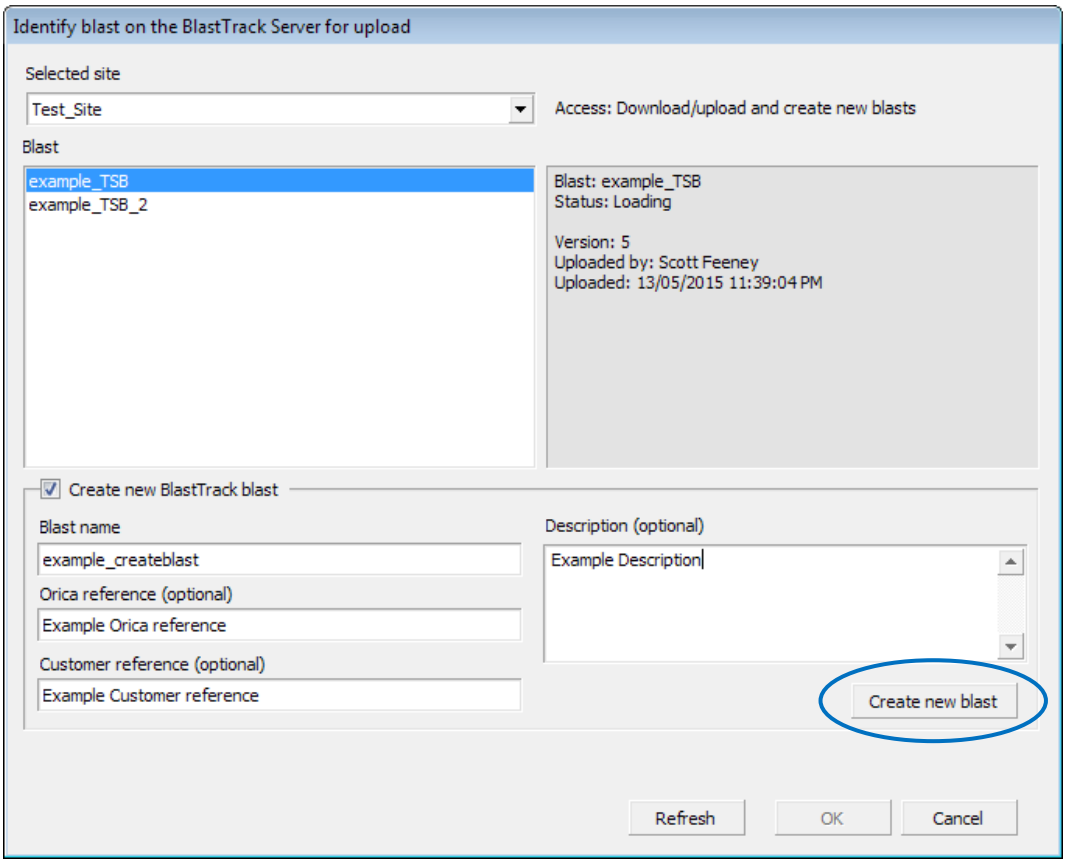
3. Select the site using the *Selected site* drop-down list.
4. Place a 'tick' in the *Create new BlastTrack blast* box.



5. Enter the **Blast name**.
6. Enter the **Orica reference (optional)**.
7. Enter the **Customer reference (optional)**.
8. Enter the **Description (optional)**.

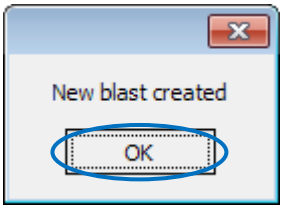
The blast name must be unique for open blasts on the site. The same name may appear across multiple sites.

The *Orica reference*, *Customer reference* and *Description* will show up for all users downloading the blast in the future and on all other BlastIQ systems.



9. Select **Create new blast**.

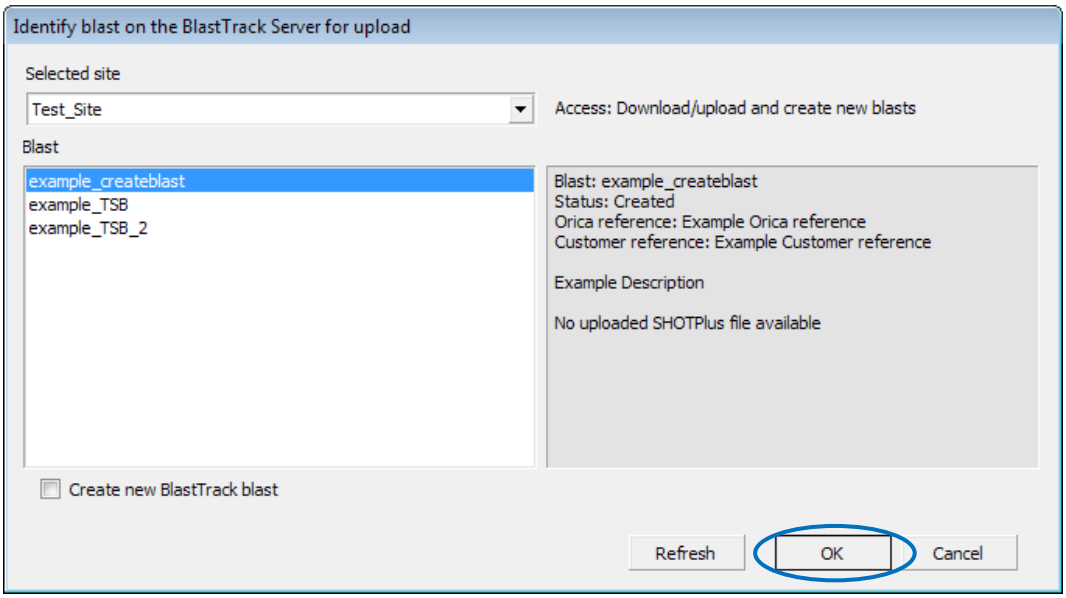
Successful new blast creation is shown with the following window.



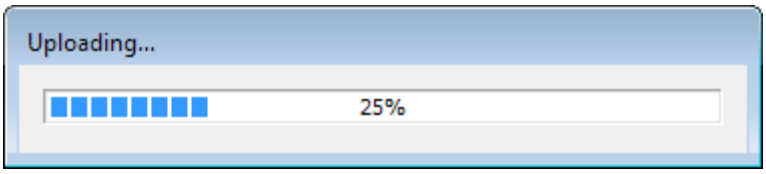
10. Select **OK** .

The new blast now appears in the blast list. The details entered appear in the box to the right. At this stage, it should be noted, there is *No uploaded SHOTPlus file available*.

11. Select **OK** to upload the current SHOTPlus 5 file to the new blast.

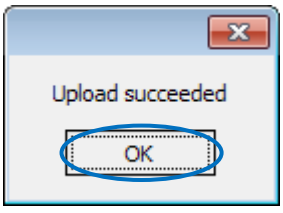


The SHOTPlus 5 file will upload.



After the file has uploaded, *Upload succeeded* will display.

12. Select **OK**.



The new blast and the blast file are now available for use by other users.

9.4 MANAGING DESIGN VERSIONS USING BLASTIQ

Throughout the blast process there can be many design changes. Some of these changes are updates to the design due to real life data provided by the parts of the BlastIQ system, other updates are refinements to the design: trying different things to achieve a better outcome from the blast design. In order to ensure that the latest blast design file is being worked on, it should be downloaded from BlastIQ each time, and uploaded after it has been worked on, to ensure that any changes are available for the next user. It will automatically include any changes made by any part of the BlastIQ system; if a hole has been dipped etc, that new information will be incorporated into the latest design file.

The version number will be incremented each time the file is uploaded to BlastIQ. It will also record who uploaded it and when. Each of the previous files are also available for downloading, if required, from BlastIQ.

Listed below are the current stages that the blast design goes through during its life cycle.

9.4.1 Hole States

1. DESIGN — hole position and length has been designed
2. DIPPED — hole drilled and measured
3. RELEASED — redrilling or backfilling has been completed and the hole is available for loading
4. LOADED — hole has been loaded and the loading information has been recorded

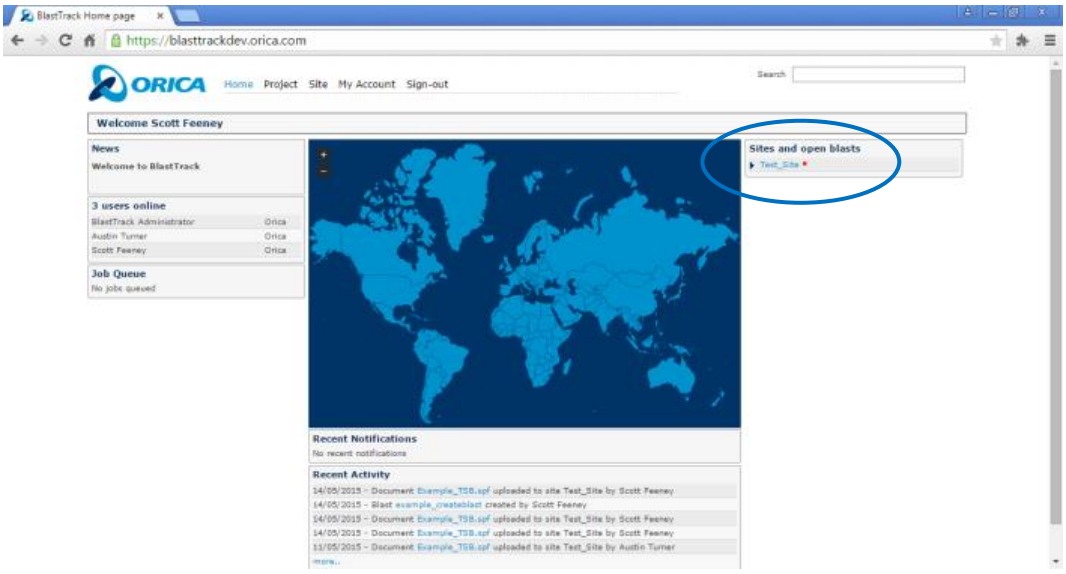
9.4.2 Blast States

1. CREATED — blast has an ID and name created in BlastIQ
2. SURVEYED — survey information has been imported
3. DESIGNED — blast hole positions are designed, loading is designed
4. RELEASED — the blast has been approved and is available for loading
5. LOADING — product loading is in progress
6. FIRED — blast has been fired and post blast measurements are being recorded
7. CLOSED — the blast life cycle is complete. The blast will no longer appear in other BlastIQ connected systems; only BlastIQ. The blast name can be reused.

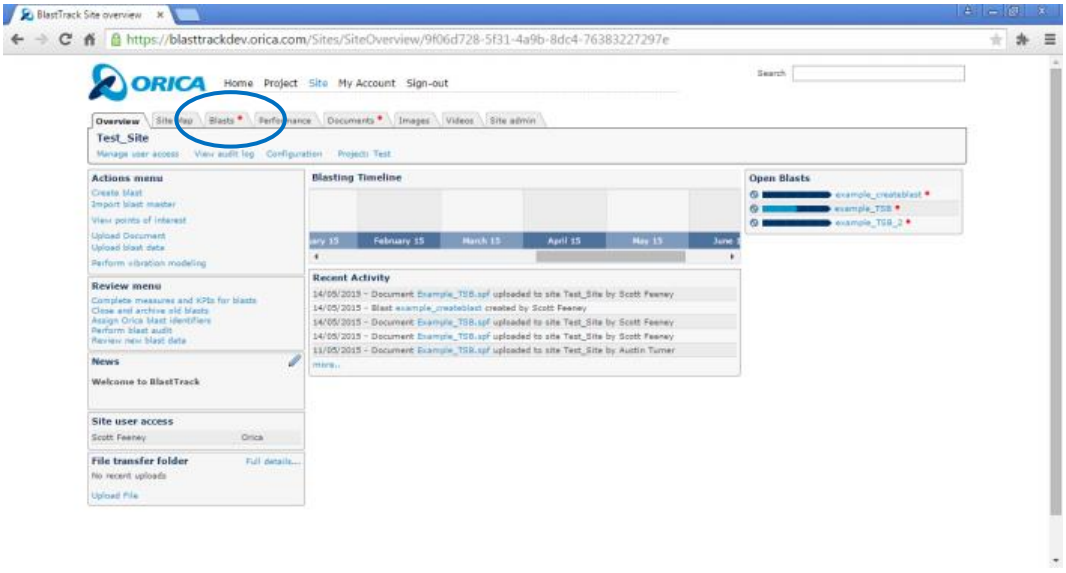
9.5 ACCESSING PREVIOUS VERSIONS FROM BLASTIQ

BlastIQ retains all previous versions of the blast file, but prompts the user to select the latest version to work with. If an earlier version is required for viewing, or if the decision has been made to revert back to an earlier version, BlastIQ provides that capability.

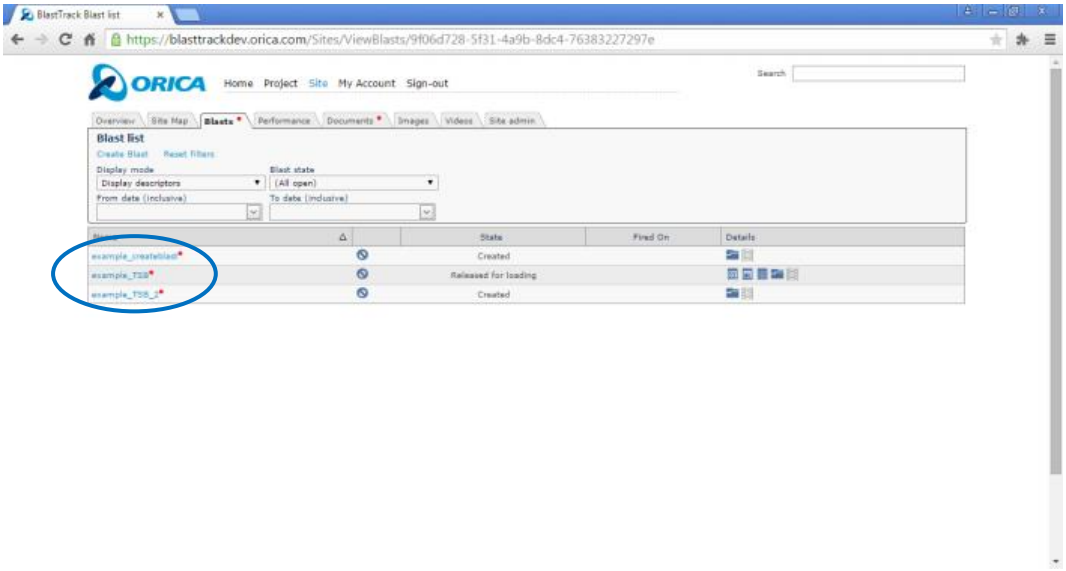
1. Go to the *BlastIQ Home page*.
2. Select the **Site** from the Sites and open blasts list.



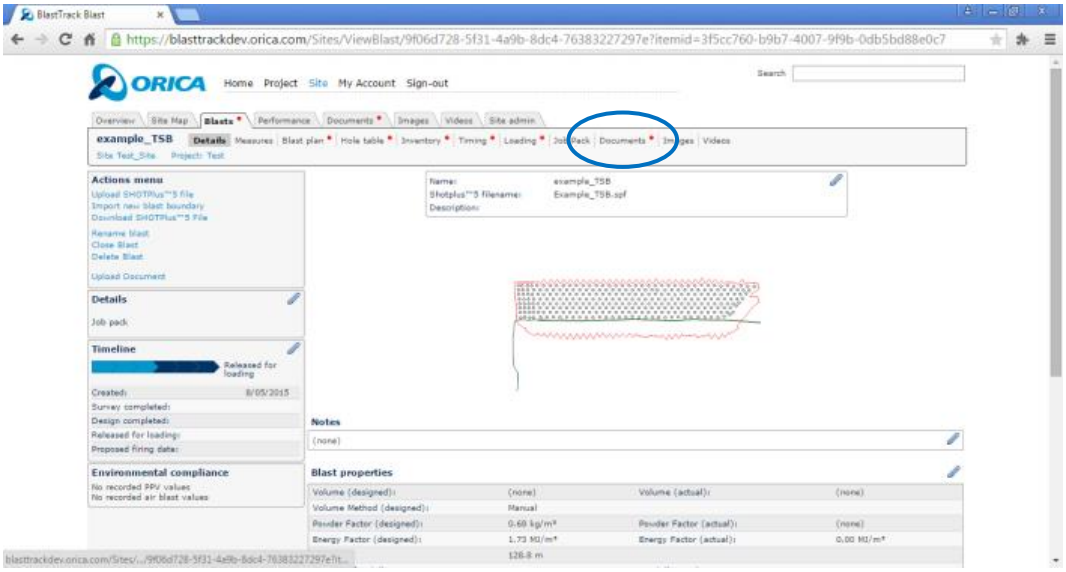
3. Select the **Blasts** tab.



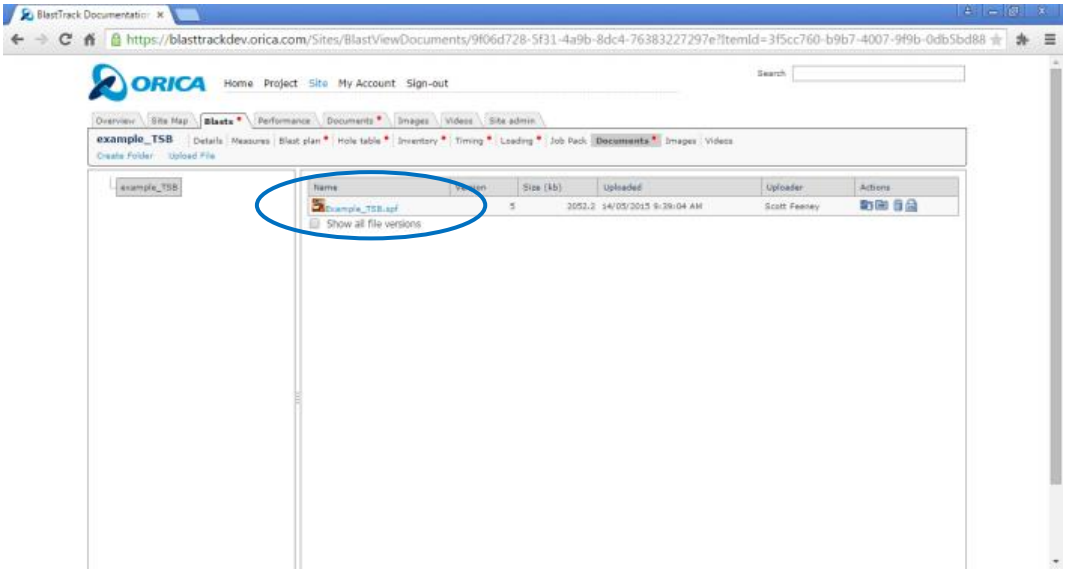
4. Select the **Blast** from the *Blast list*.



5. Select **Documents** from inside the *Blasts* tab. Do not select the *Documents* tab at the top.

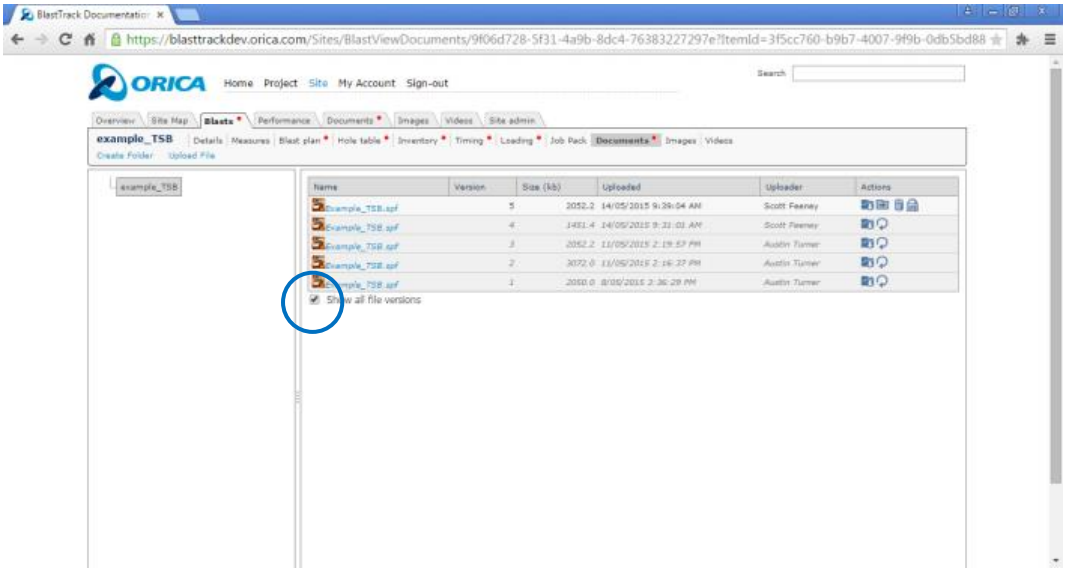


By default, only the latest file version will be shown.



6. To display all versions, place a ‘tick’ in the *Show all file versions* box.

All versions of the file are now displayed.



The file list displays the current and all previous versions. Each version includes information relating to file size, the date and time when it was uploaded and by whom. The user then has the two options:

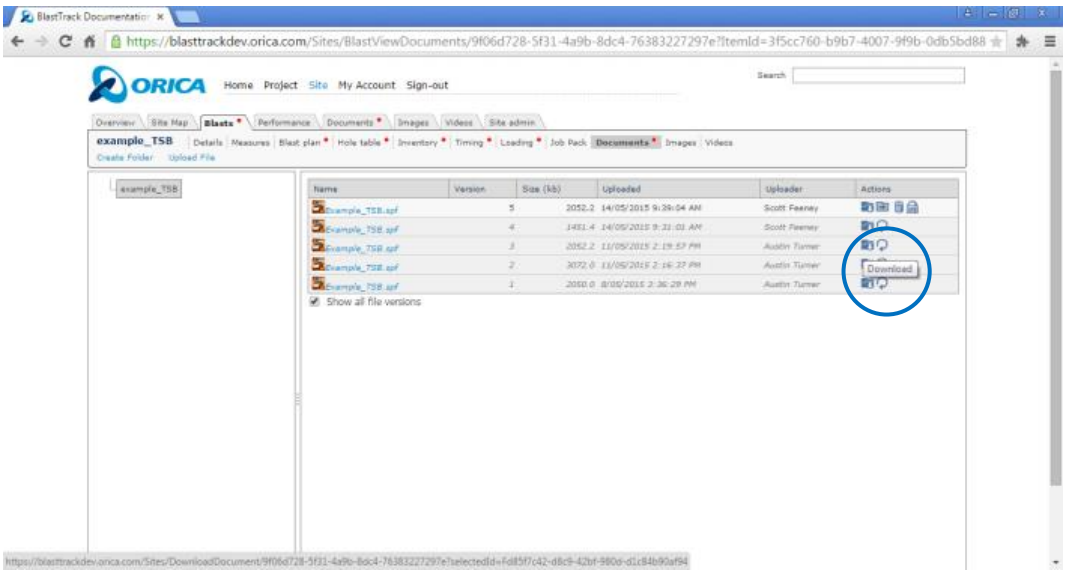
A. Download Downloads and creates a local copy of that version

B. Revert It makes the archived file version selected into a new, latest version, e.g. selecting Version 3 and selecting *Revert*, will make a copy of Version 3 and name it Version 6 (and by default, the current version). THIS SHOULD ONLY BE PERFORMED AFTER CAREFUL CONSIDERATION.

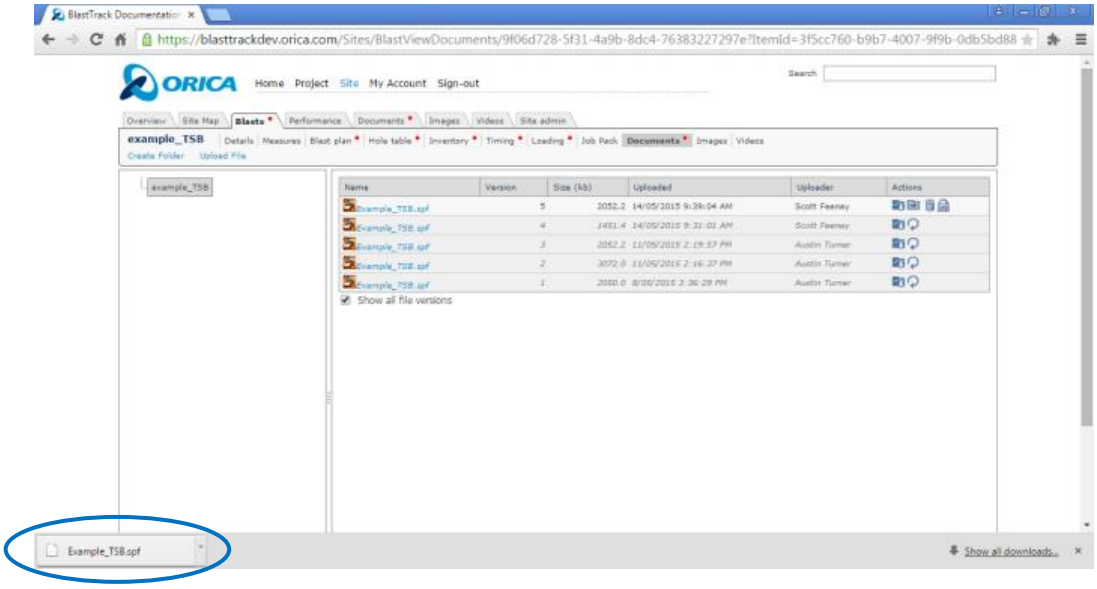
9.5.1 Downloading a Previous SHOTPlus 5 File

To download a previous version:

1. Select the **Download** icon related to the file.

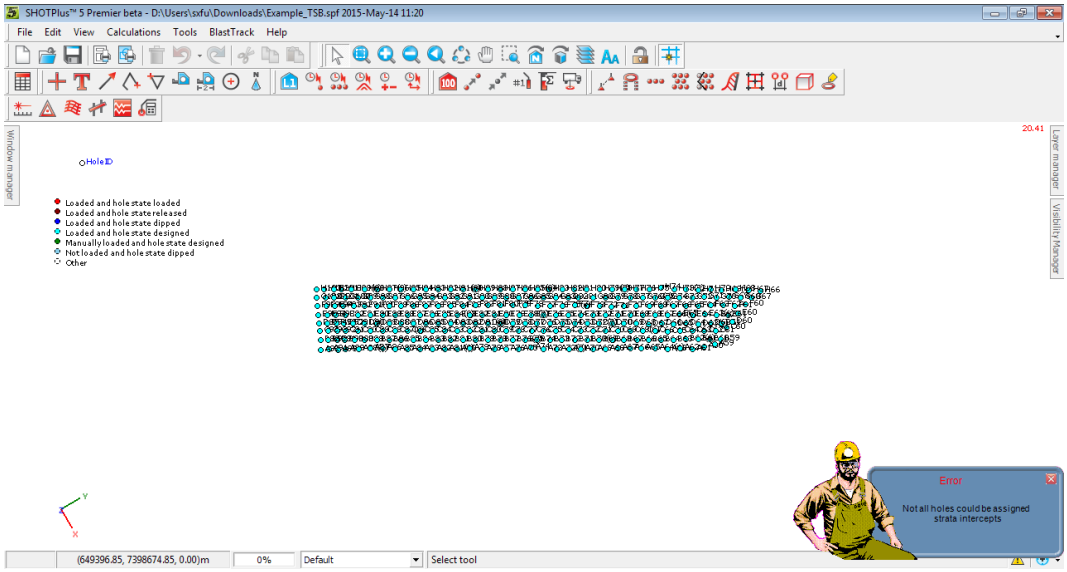


The selected blast file downloads and appears down the bottom left corner of the window.



2. Open the file by ‘left clicking’ it.

The previous file now opens in SHOTPlus 5.

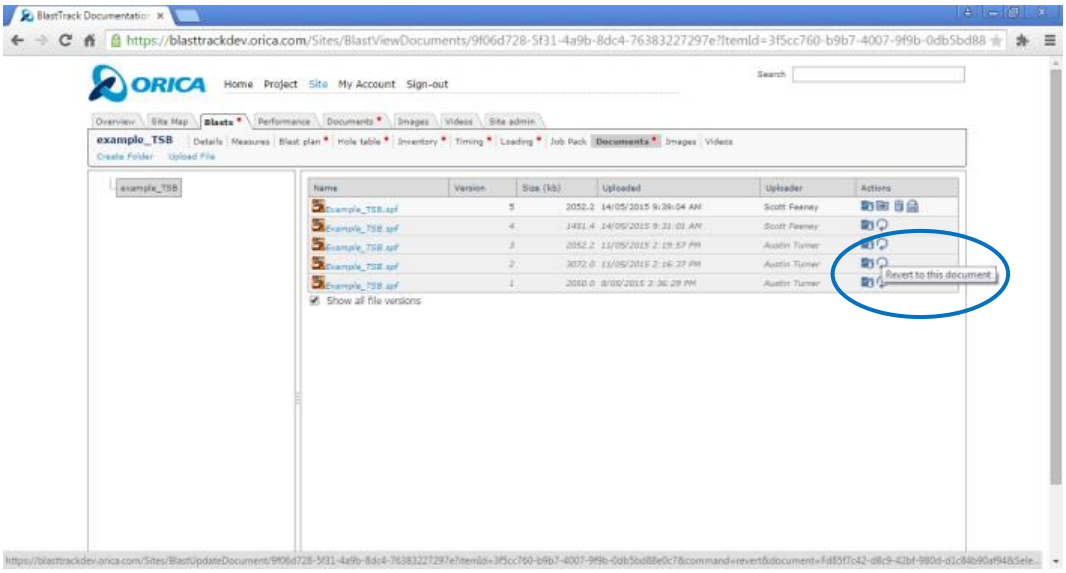


9.5.2 Reverting to a Previous SHOTPlus 5 File

NOTICE **Careful consideration must be made prior to reverting to a previous version of a blast file.**

To revert to a previous version:

1. Select the **Revert** icon related to the file.



10 BLASTER'S DESKTOP

Section Revision:	**0**	**Revision Date:**	**August 2015**

10.1 OVERVIEW

Blaster's Desktop is a desktop application that consolidates Orica's blasting related software to allow each to be selected for download. Blaster's Desktop also manages the licensing process.

10.2 INSTALLING BLASTER'S DESKTOP FOR ORICA USERS

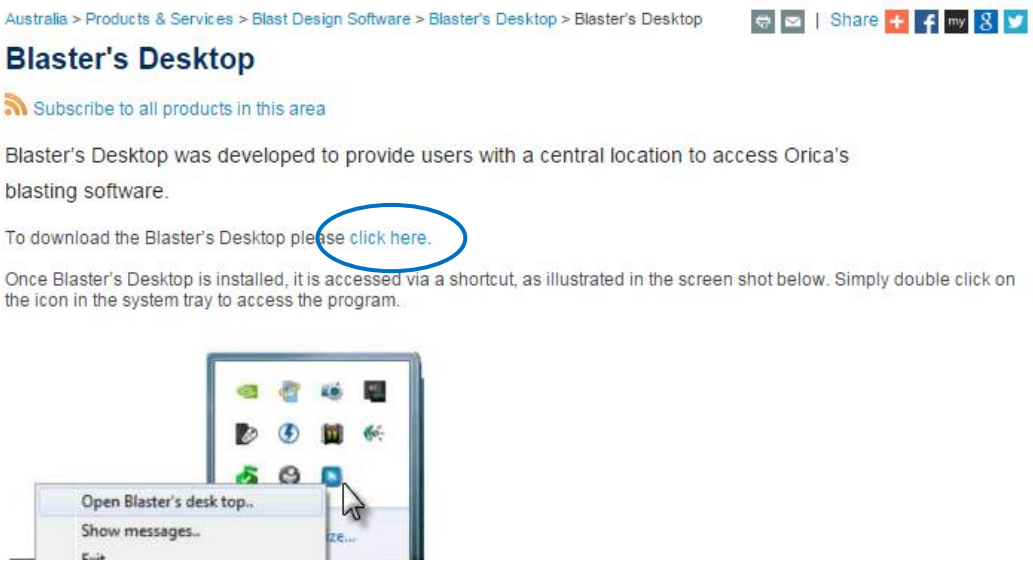
Ensure the following steps are performed when connected to the Orica network.

1. Open your internet browser (Internet Explorer is the current Orica system default).
2. Go to

   http://www.oricaminingservices.com/au/en/page/products_and_services/blast_design_software/blasters_desktop/blasters_desktop

The Blaster's Desktop webpage is displayed.

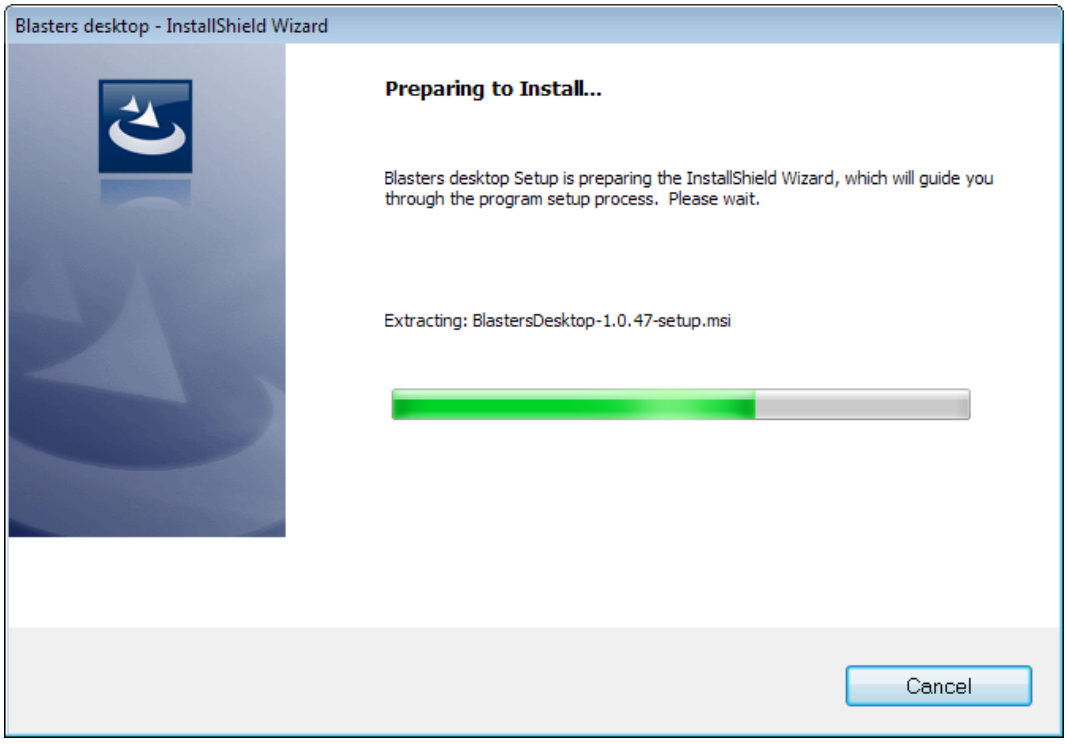
3. Select **click here**.



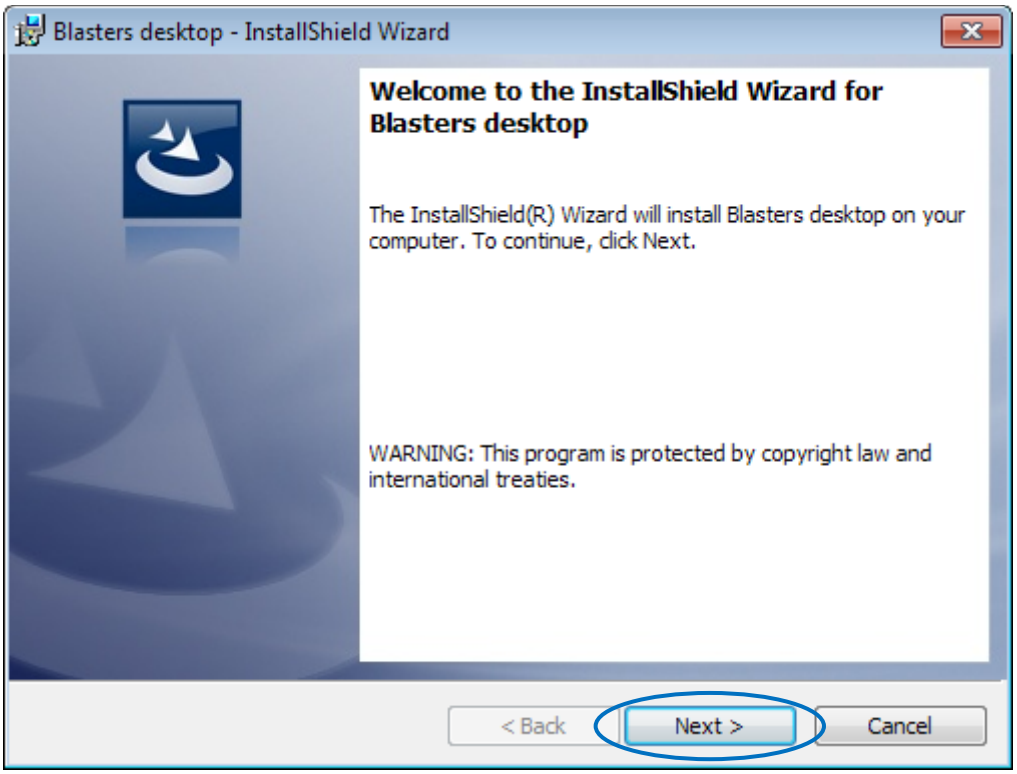
The loading utility *set-up.exe* will download.

4. Select **set-up.exe** to run it.
5. If presented with a user account control message, select **Yes**.

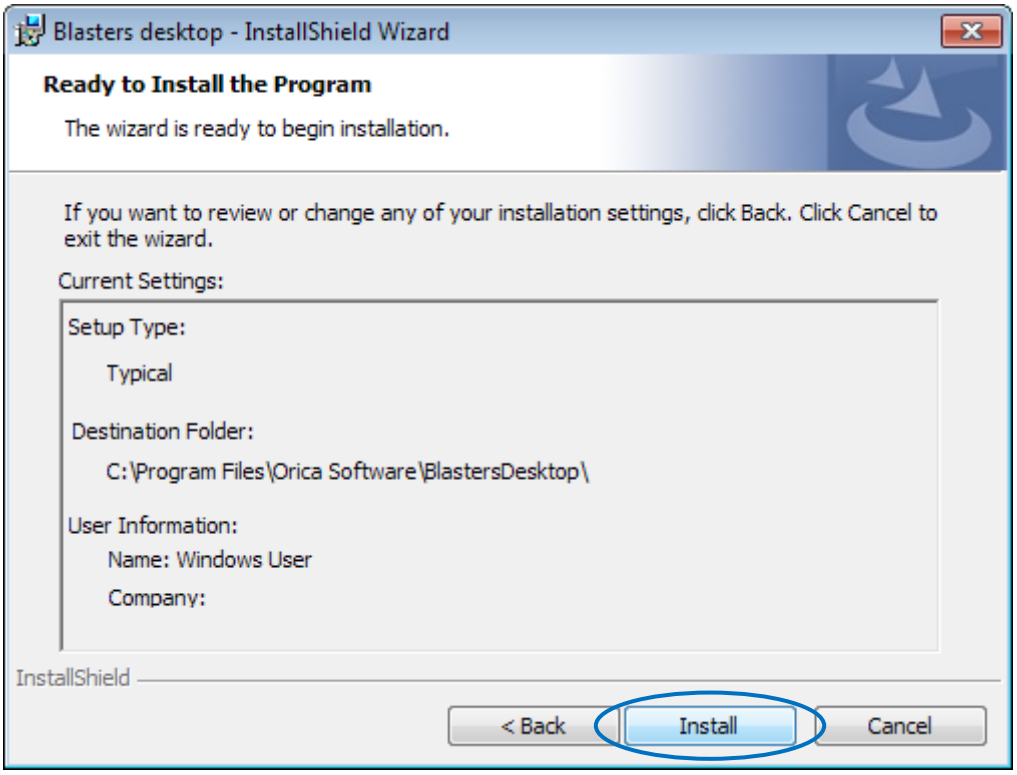
The *InstallShield Wizard* will begin the installation.



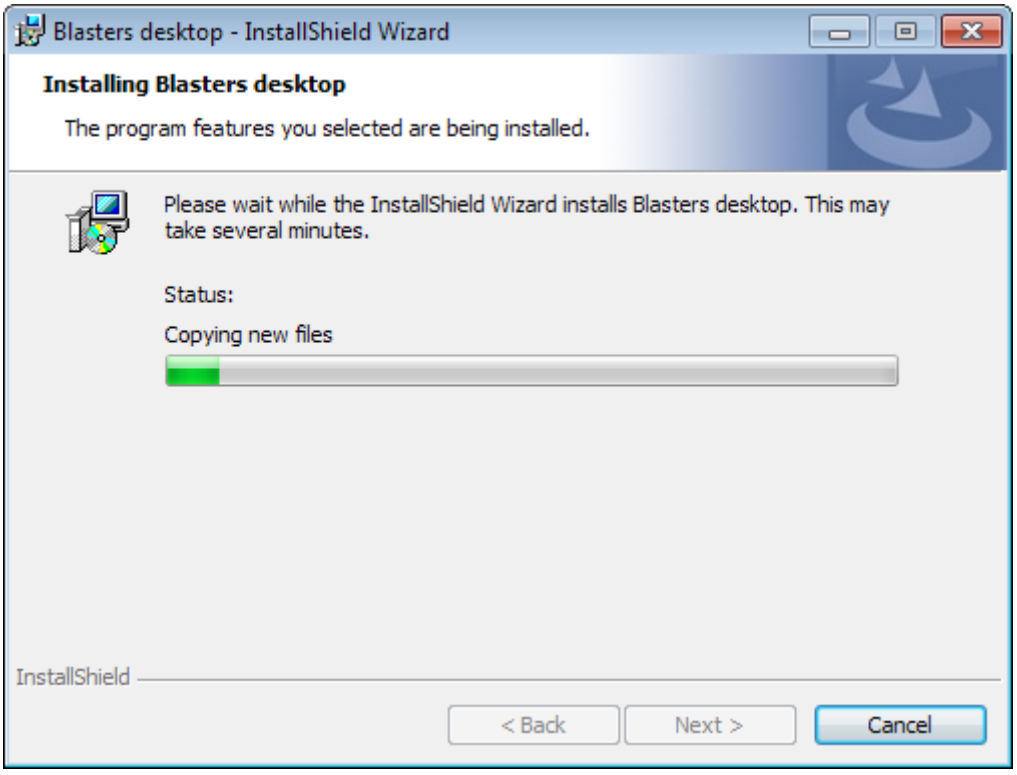
6. Select **Next**.



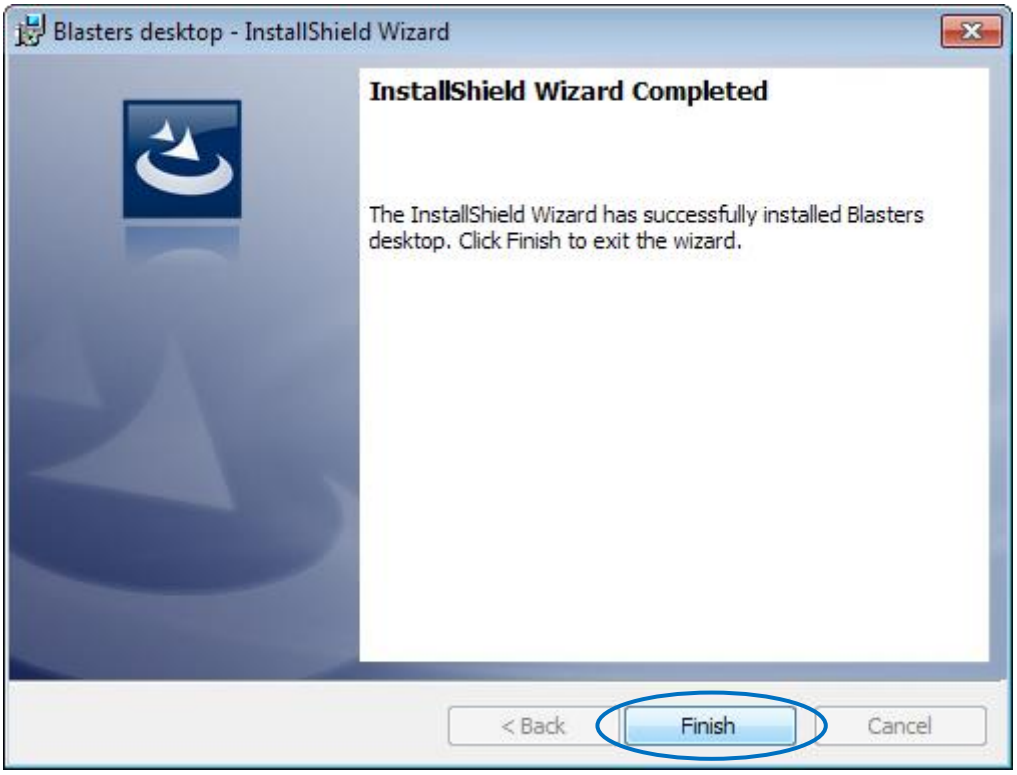
Select **Install**.



InstallShield Wizard will continue the installation.



Select **Finish**.

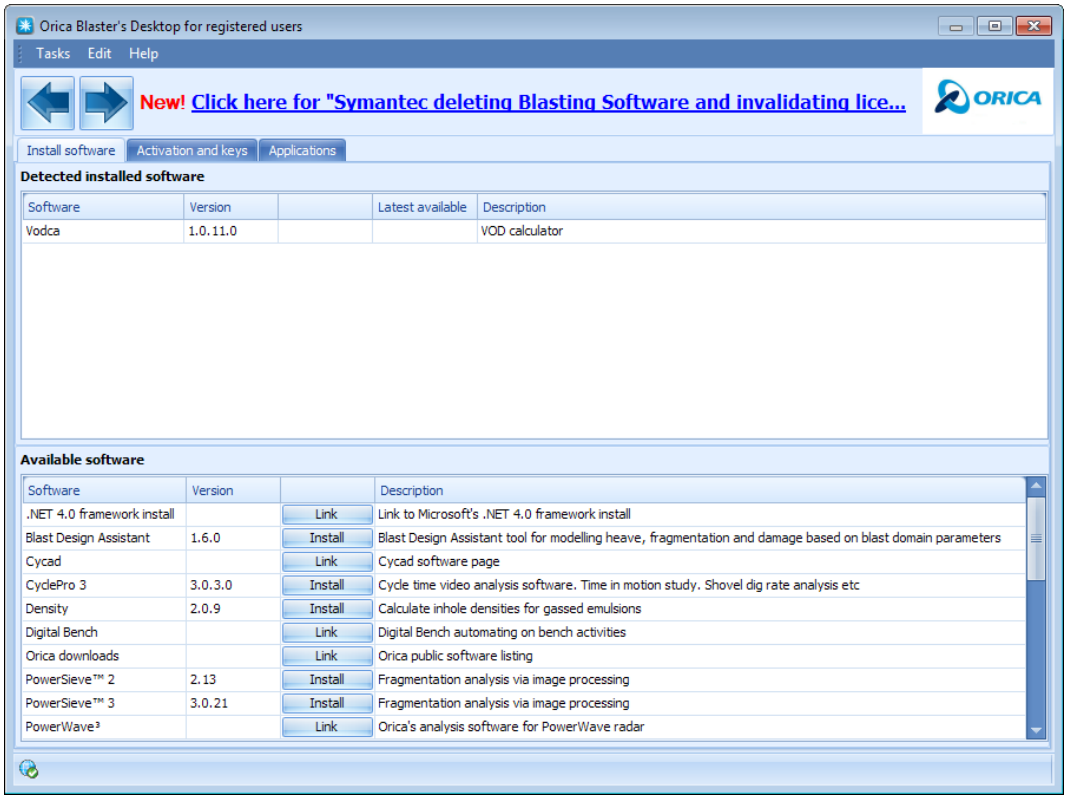


Once Blaster's Desktop has been installed, it is accessed using the desktop shortcut shown below. Simply 'double click' on the icon to access the program.

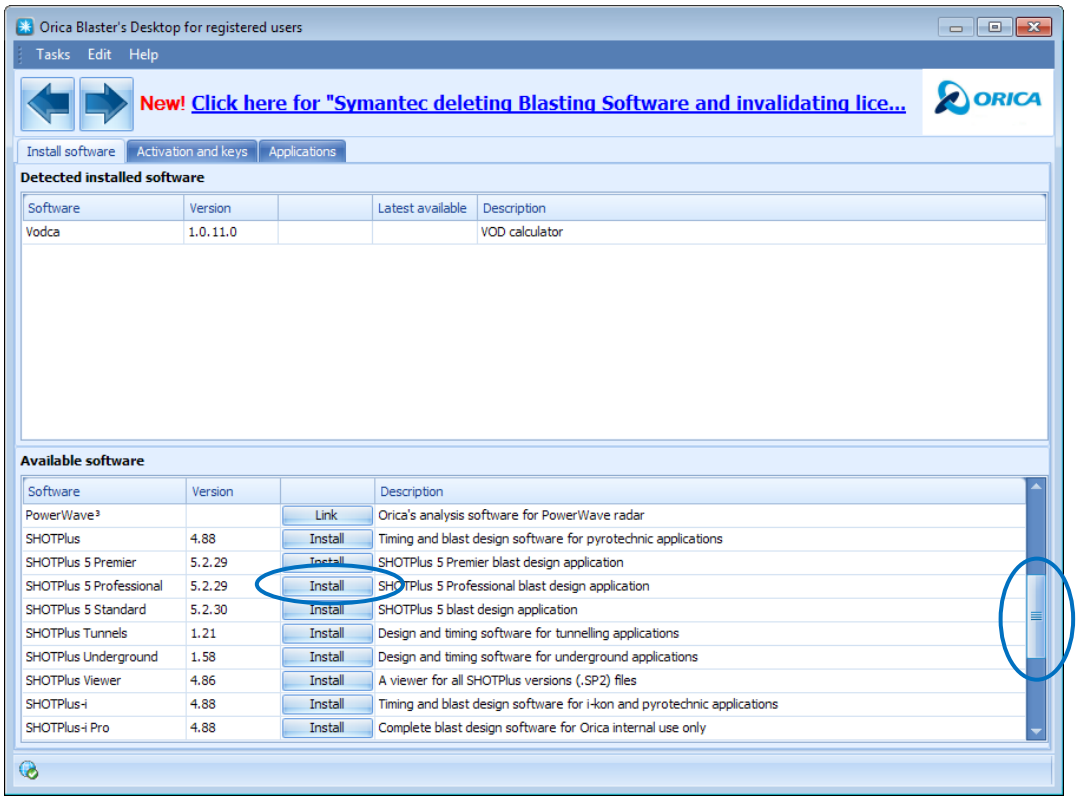
10.3 INSTALLING SHOTPLUS 5 USING BLASTER'S DESKTOP FOR ORICA USERS

Ensure the following steps are performed when connected to the Orica network.

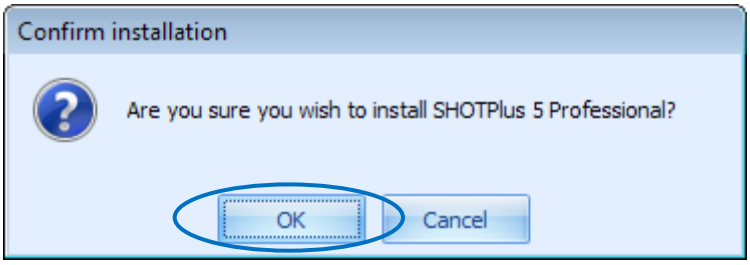
1. Open *Blaster's Desktop*.



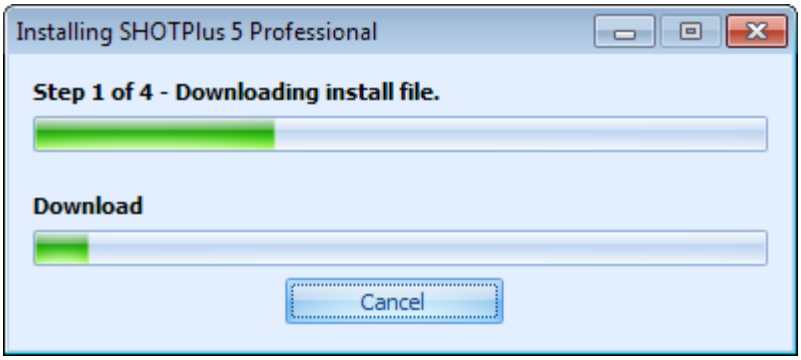
2. Scroll down using the scroll bar until *SHOTPlus 5 Professional* is visible.
3. Select **Install** (beside *SHOTPlus 5 Professional*).



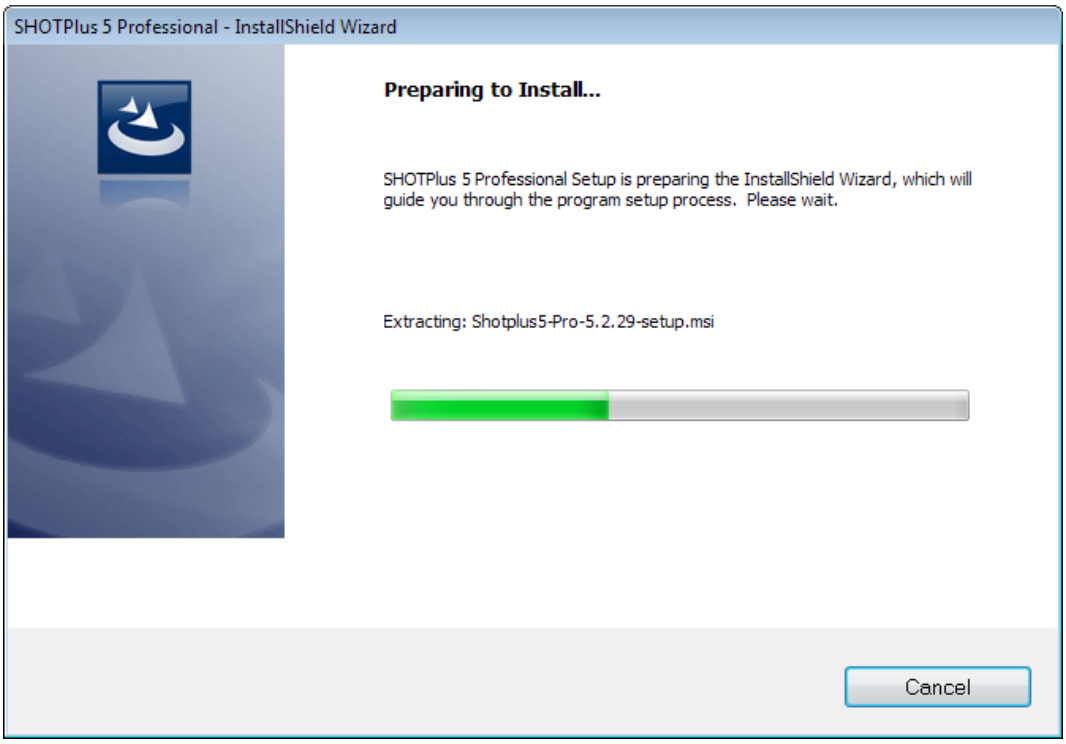
4. Select **OK**.



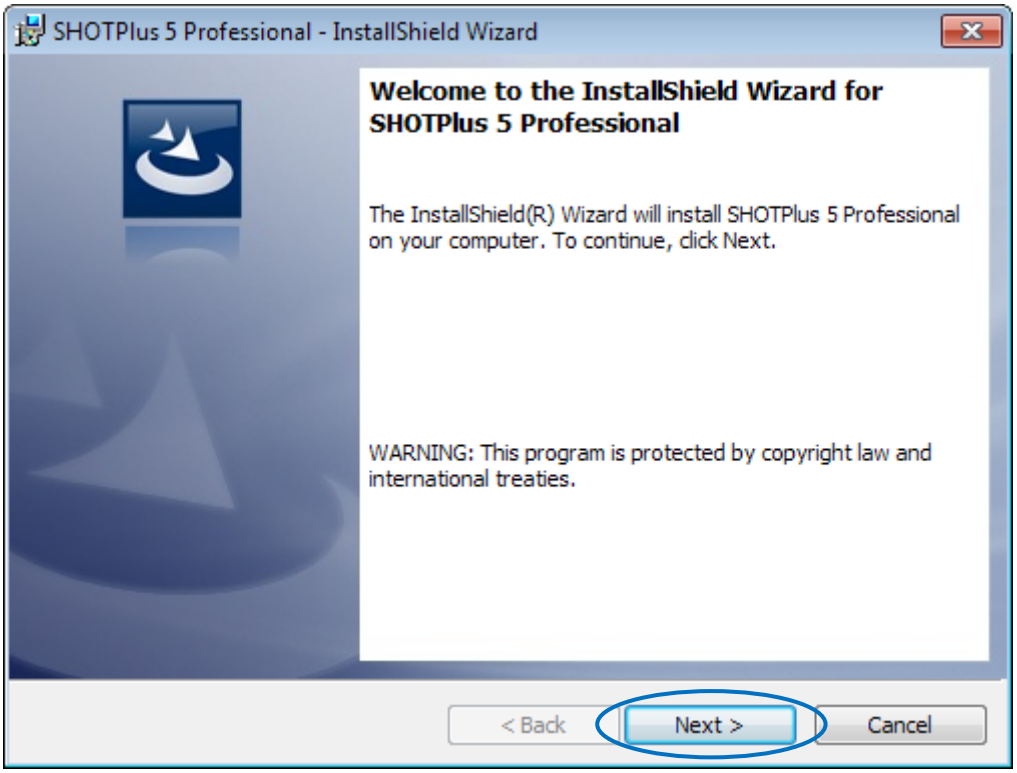
SHOTPlus 5 installation files will download.



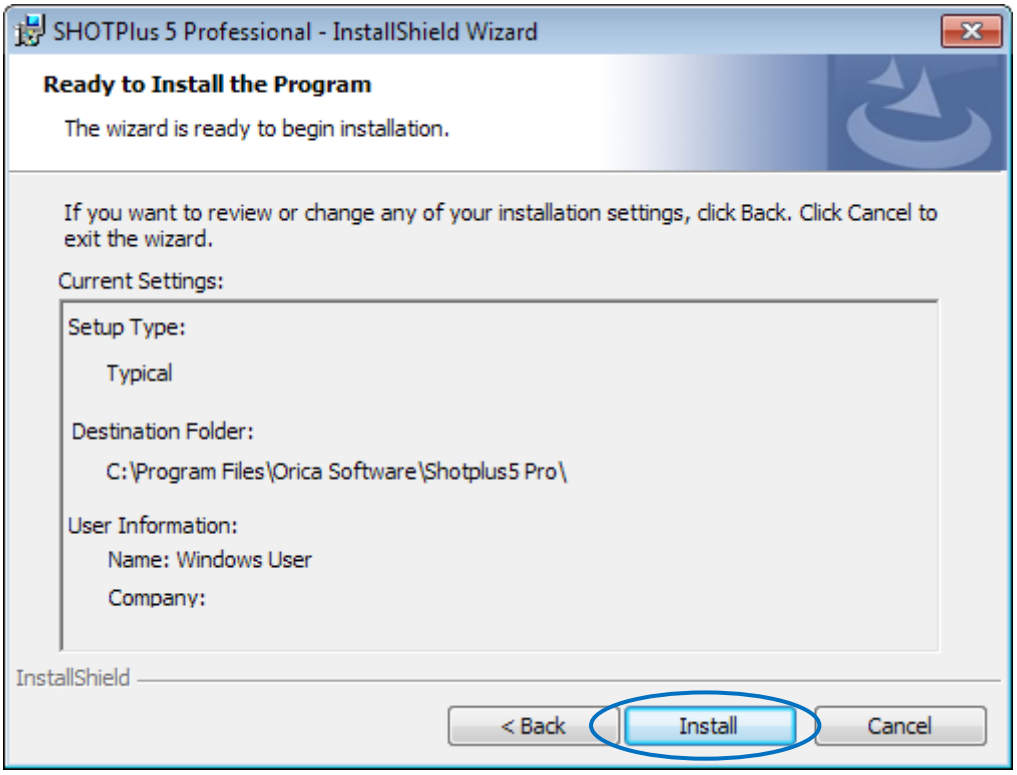
5. If presented with a user account control message, select **Yes**.
   The *InstallShield Wizard* will begin the installation.



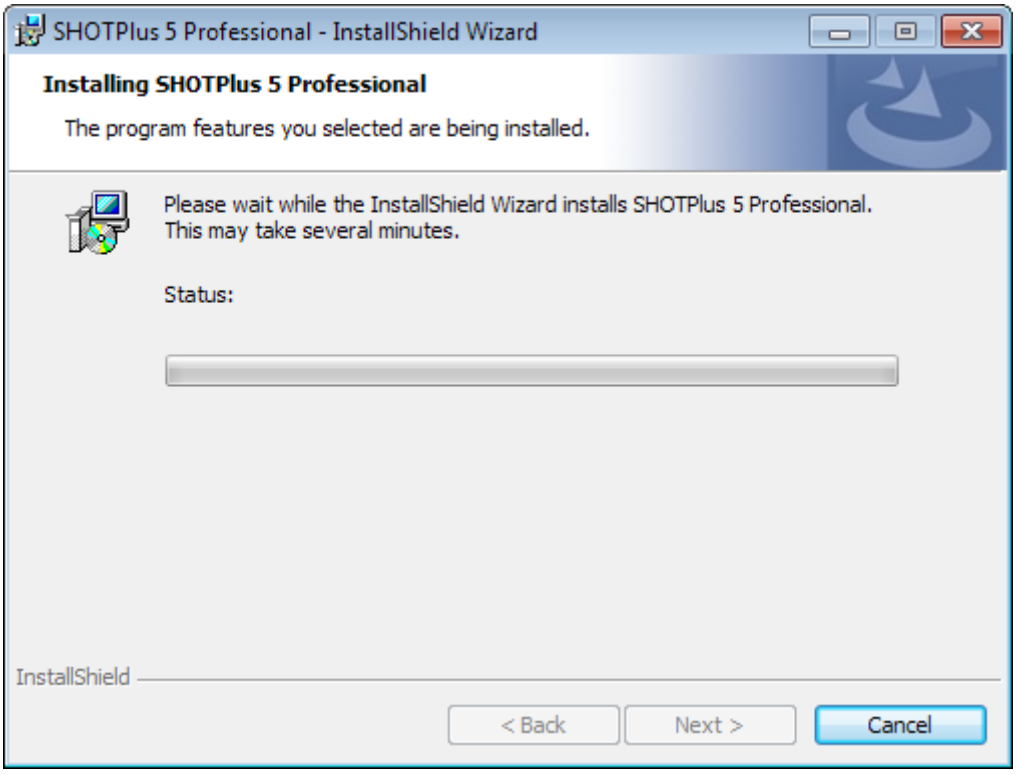
6. Select **Next**.



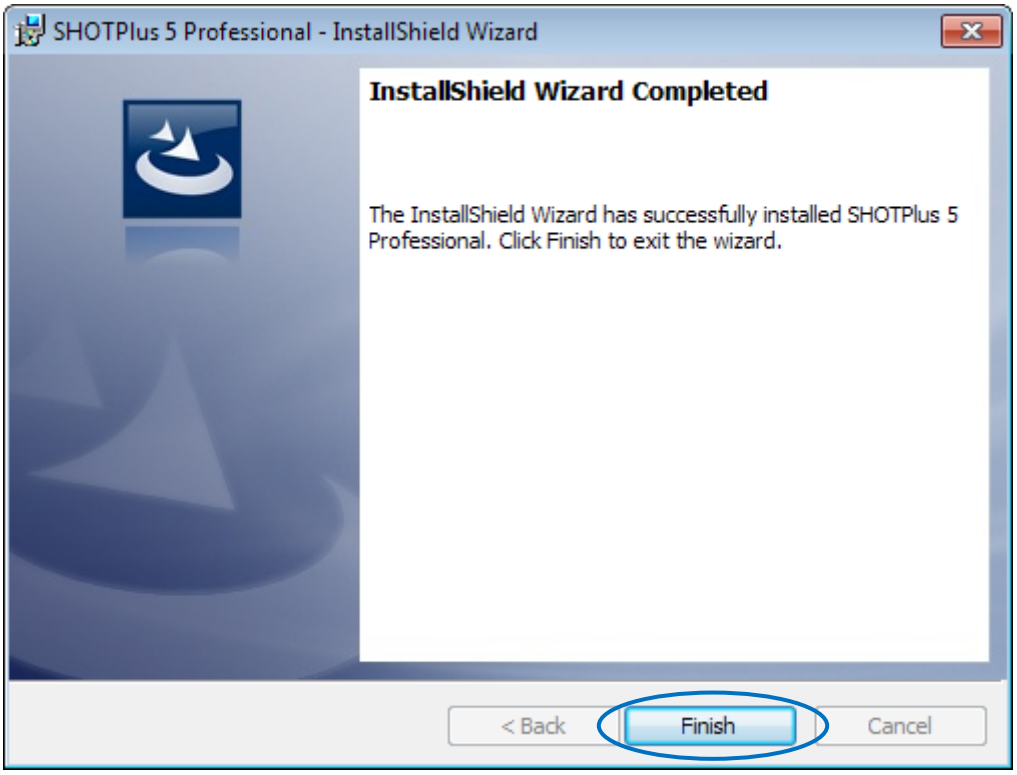
7. Select **Install**.



The InstallShield Wizard will continue the software installation.

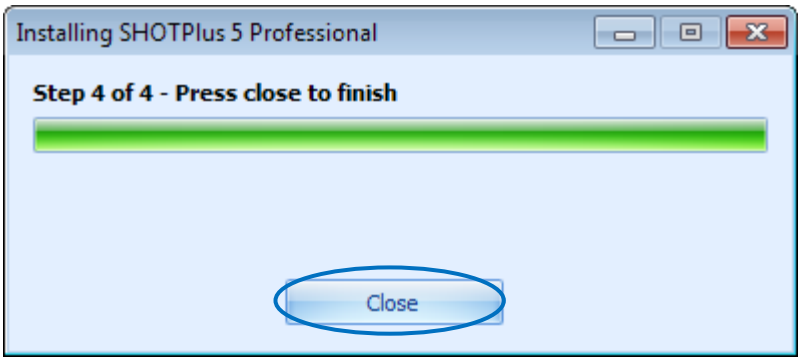


8. Select **Finish**.

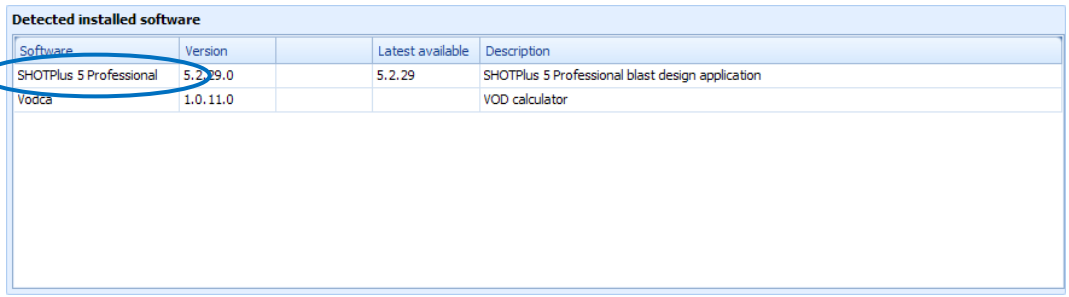


Return to *Blaster's Desktop*.

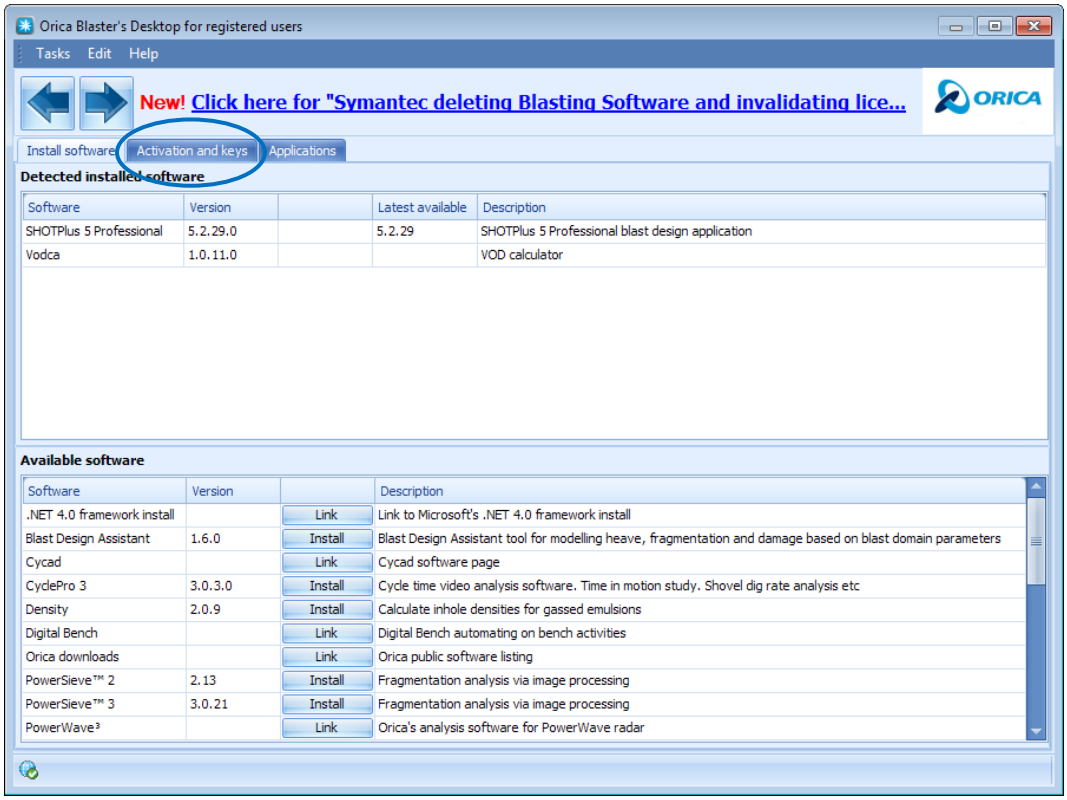
9. Select **Close**.



SHOTPlus 5 Professional will now appear in the *Detected Installed software* list.

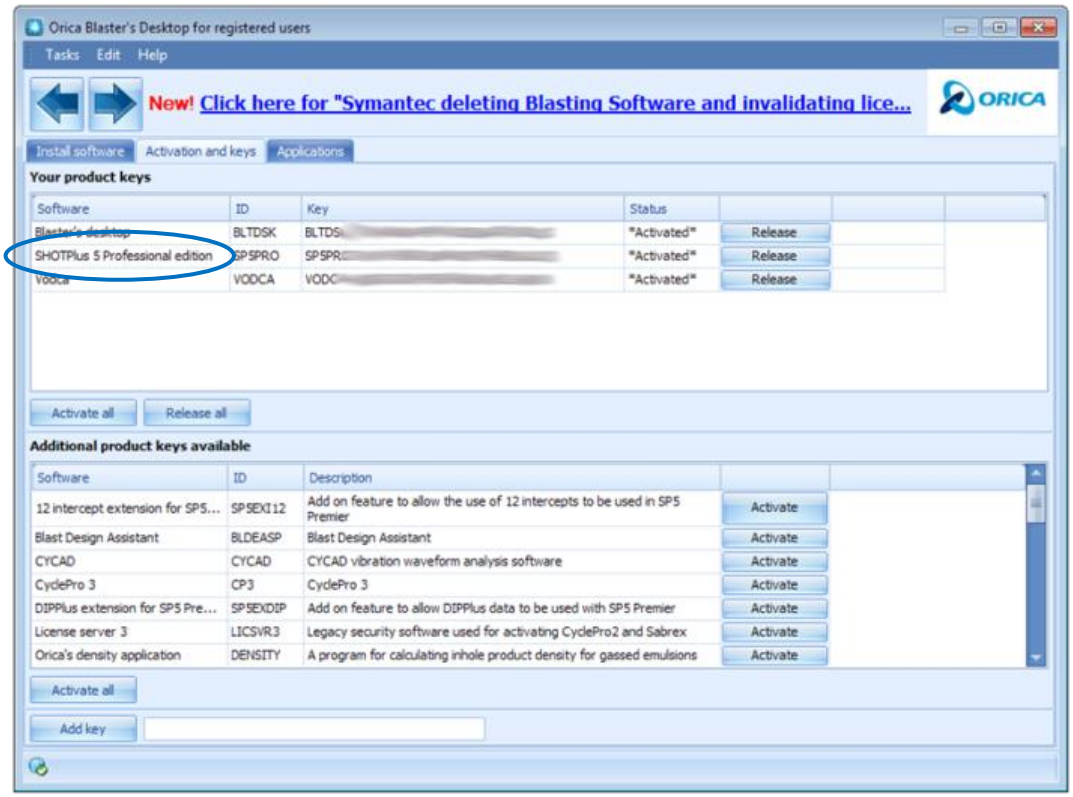


10. Select the **Activation and keys** tab.

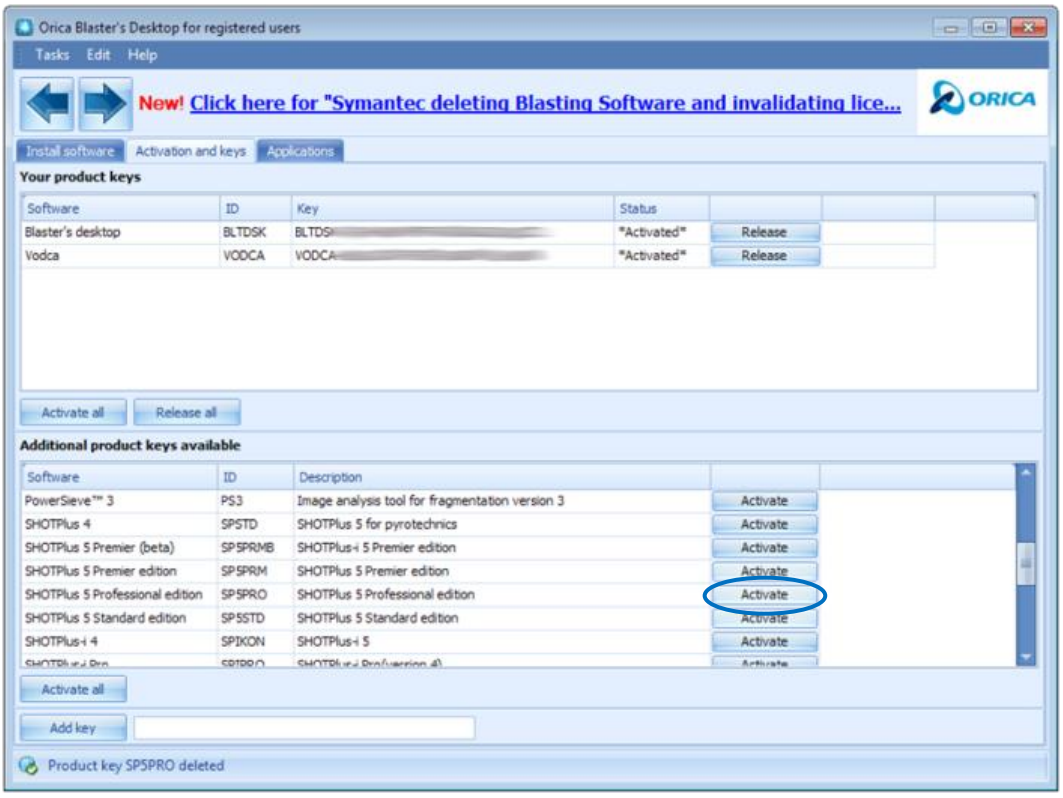


If *SHOTPlus 5 Professional edition* appears in the *Your product keys* section, installation is complete and SHOTPlus 5 is ready to use.

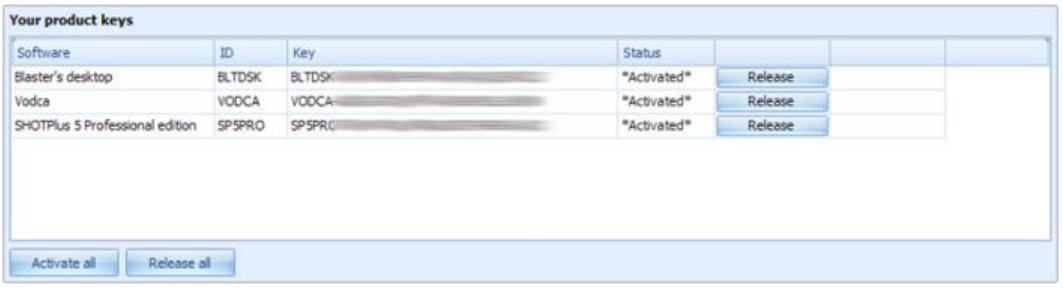
If *SHOTPlus 5 Professional edition* does <u>not</u> appear, continue from Step 11.



11. Scroll down until SHOTPlus 5 Professional edition appears in the Additional product keys available section.
12. Select **Activate** (beside *SHOTPlus 5 Professional edition*).



SHOTPlus 5 Professional edition will now appear in the *Your product keys* section.

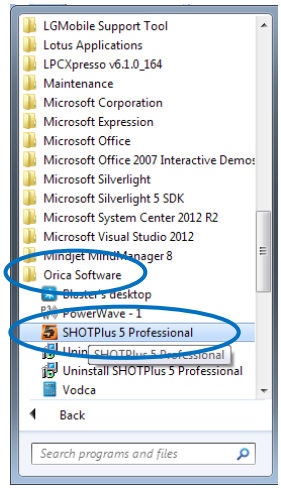


SHOTPlus 5 is now ready to use.

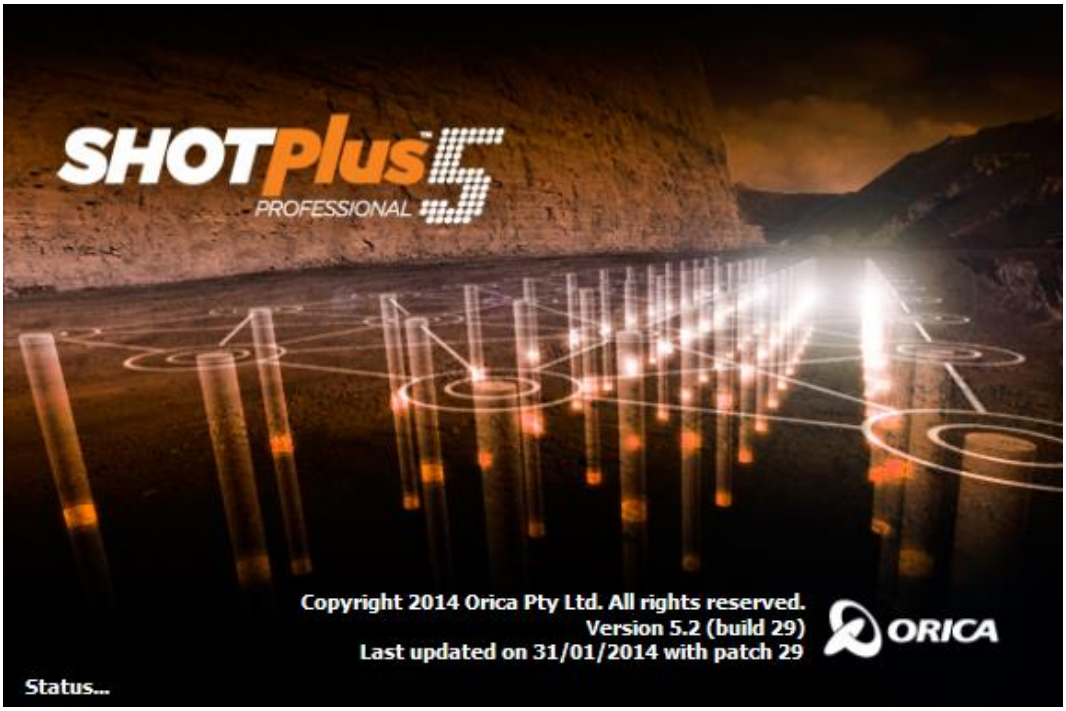
13. Exit from *Blaster's Desktop*.

10.4 RUNNING SHOTPLUS 5 FOR THE FIRST TIME

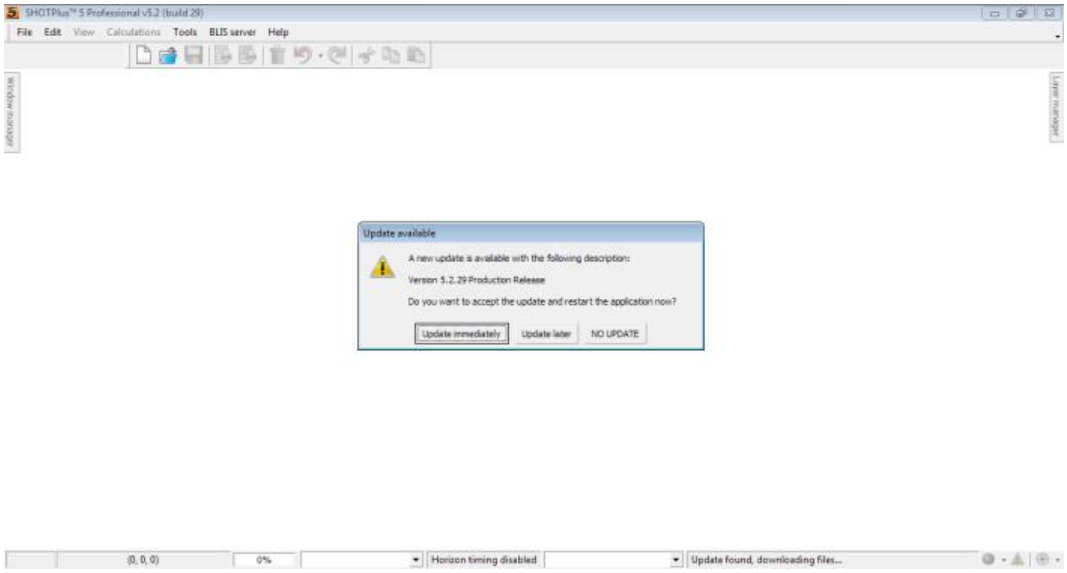
1. Select **All Programs** / **Orica Software** / **SHOTPlus 5 Professional**.



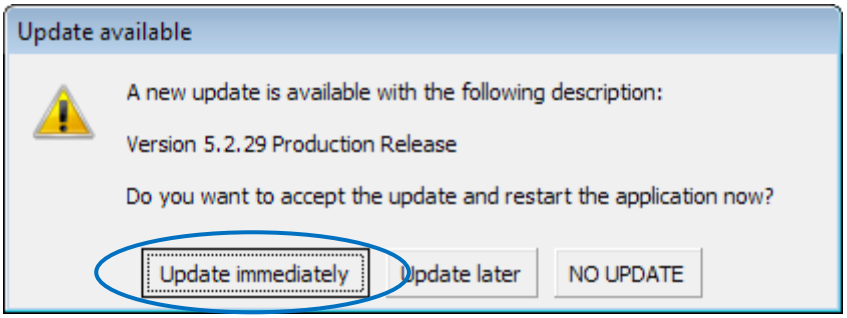
The SHOTPlus 5 Start up screen displays.



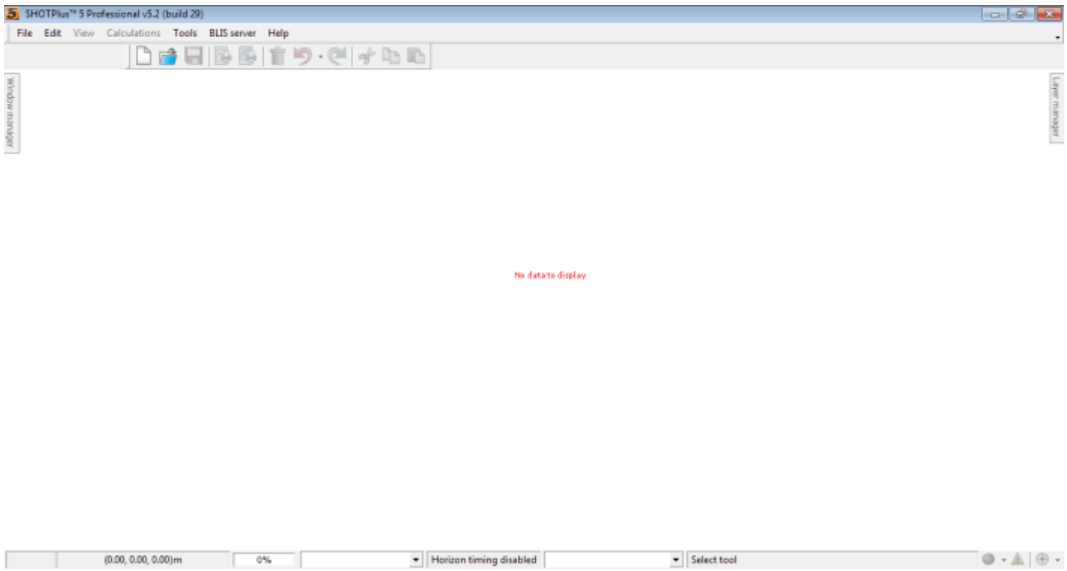
After starting *SHOTPlus 5*, you may be prompted to install an update.



2. Select **Update immediately** (refer to *4.6 Installing SHOTPlus 5 Updates* for further information).



SHOTPlus 5 is loaded and ready for use.



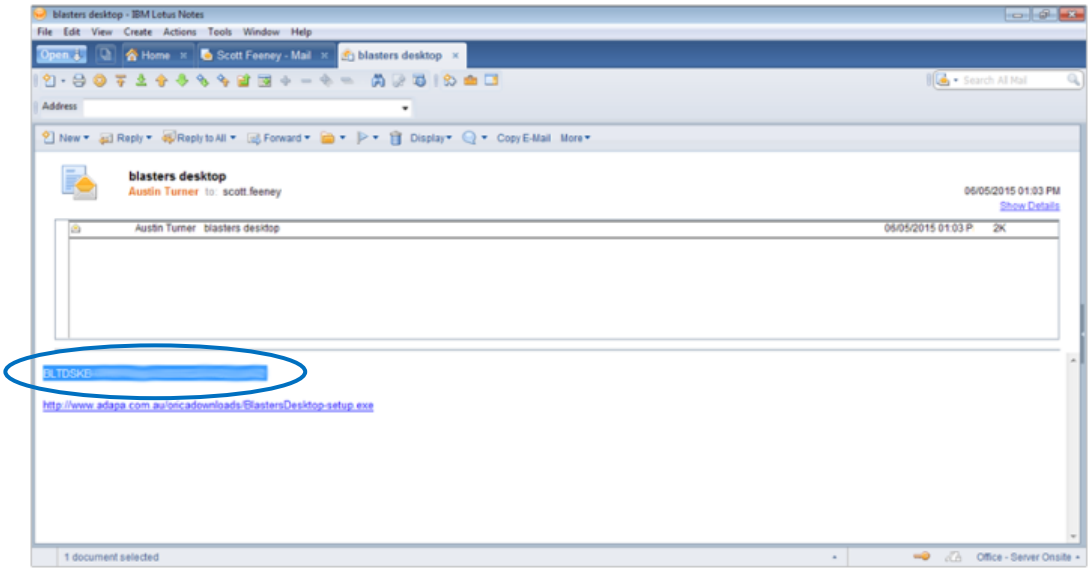
10.5 INSTALLING BETA SOFTWARE FOR TESTING

Installing the beta version of the software allows a select group of users to evaluate software prior to general release. Beta software users play a vital role in development, providing suggestions and identifying errors in the code.

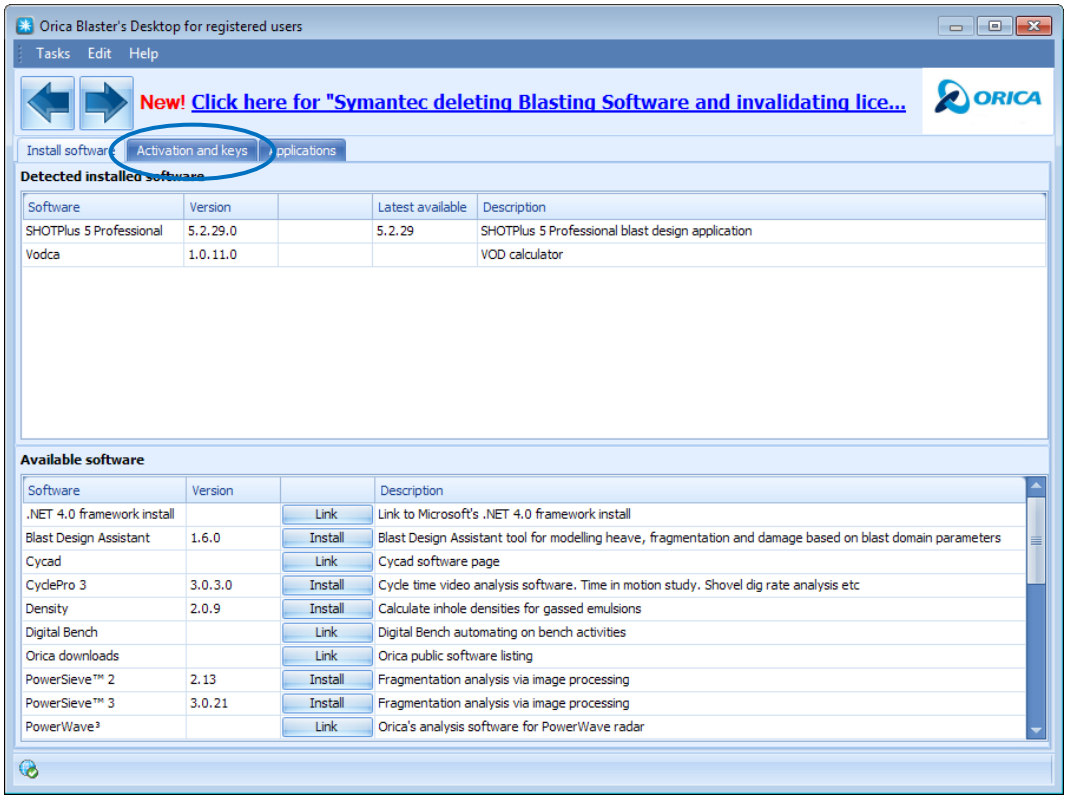
To install beta versions of software, *Blaster's Desktop (beta)* must be downloaded first.

Users selected as beta software users will receive an email from the system administrator.

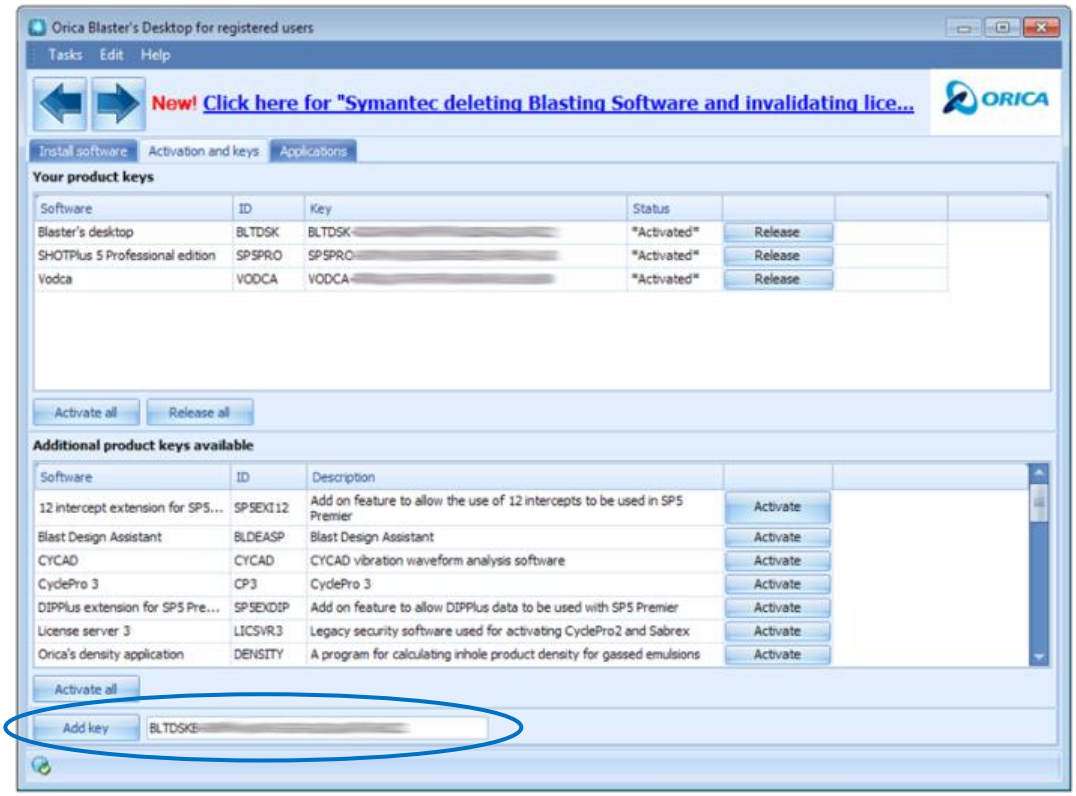
1. Copy the **key** from the email.



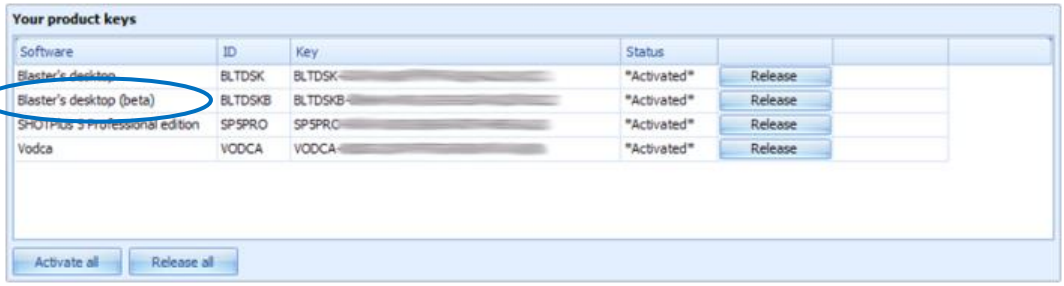
2. Open **Blaster's Desktop** using the desktop shortcut.
3. Select **Activation and keys**.



4. Paste the **key** in the field beside **Add key**.
5. Select **Add key**.

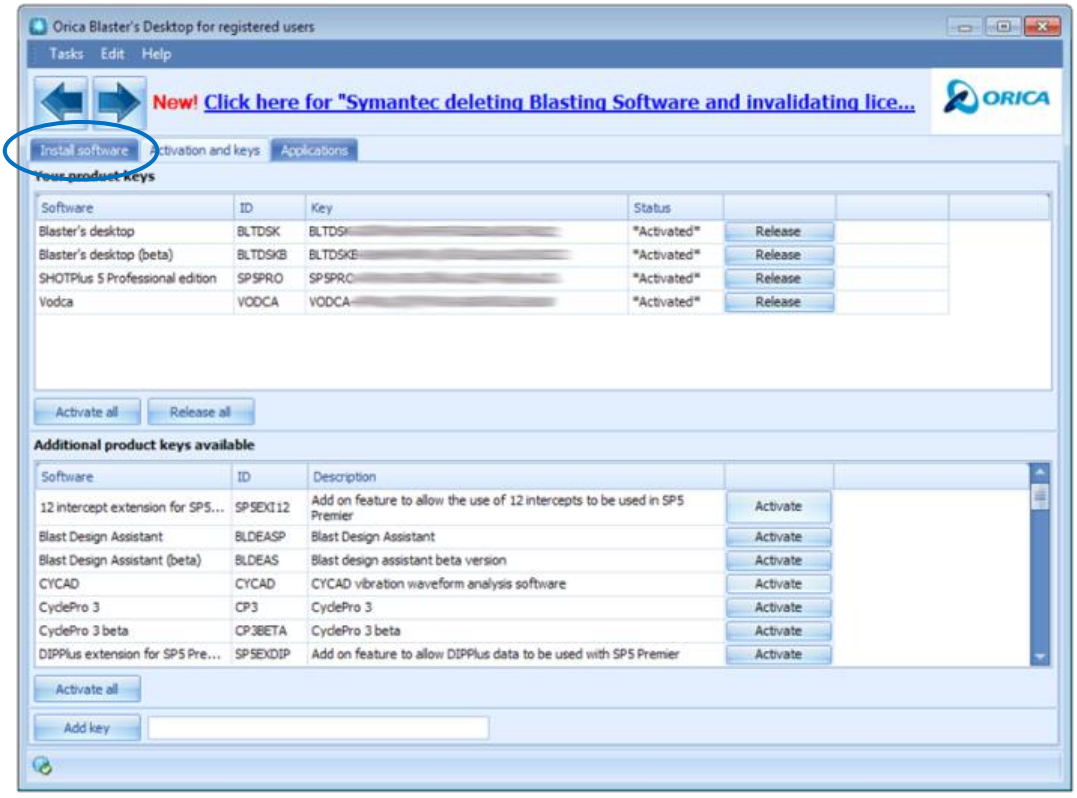


This action adds the beta version into the **Your product keys** area.



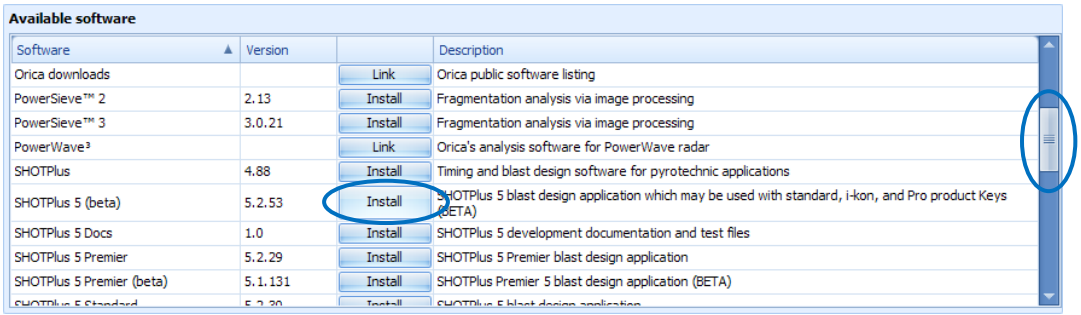
After installing the beta version of *Blaster's Desktop*, the other beta versions of software are now available.

6. Select the **Install software** tab.

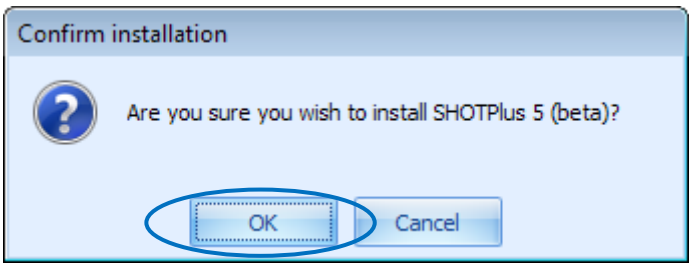


The beta versions of the software now appear.

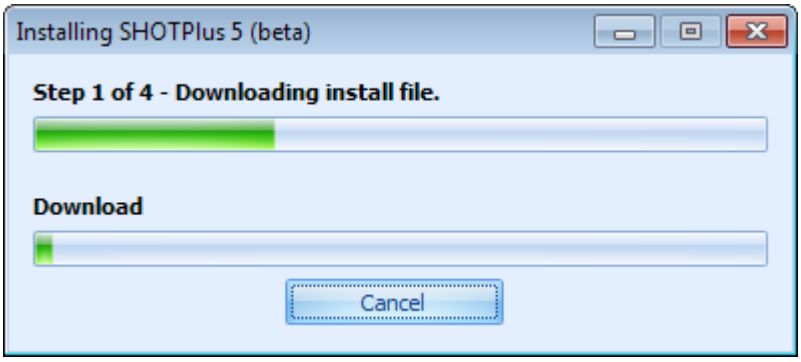
7. Scroll down to *SHOTPlus 5 (beta)* using the scroll bar.
8. Select **Install**.



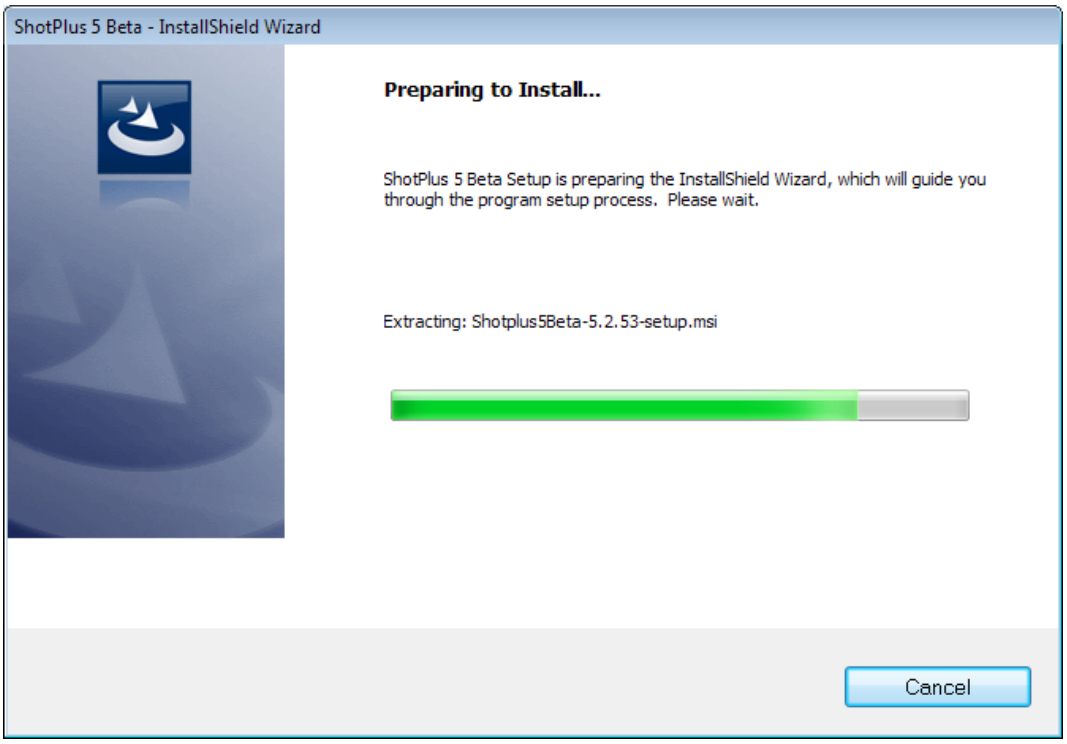
9. Select **OK**.



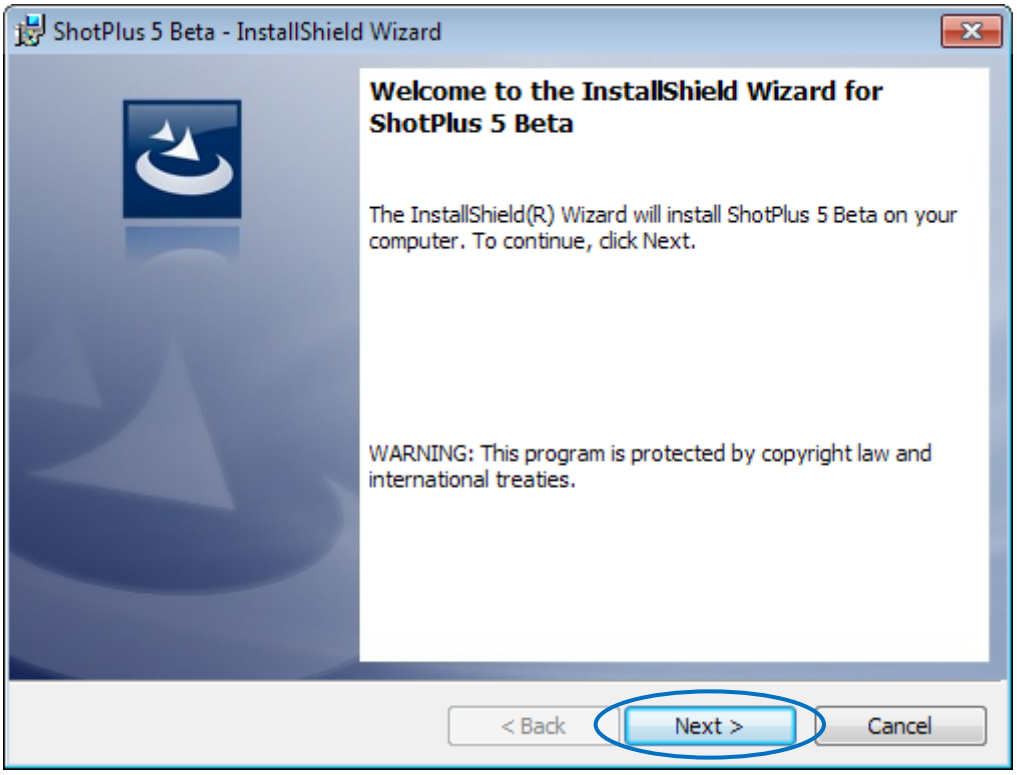
The SHOTPlus 5 beta version will be installed.



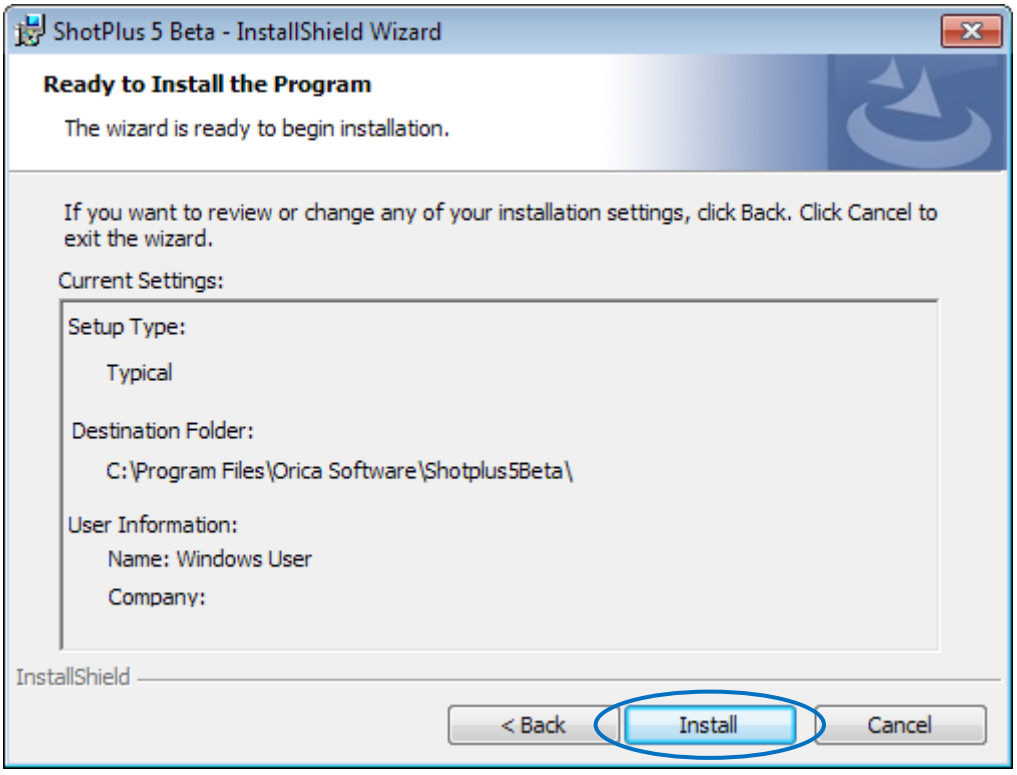
10. If presented with a user account control message, select **Yes**.
    The *InstallShield Wizard* will begin the installation.



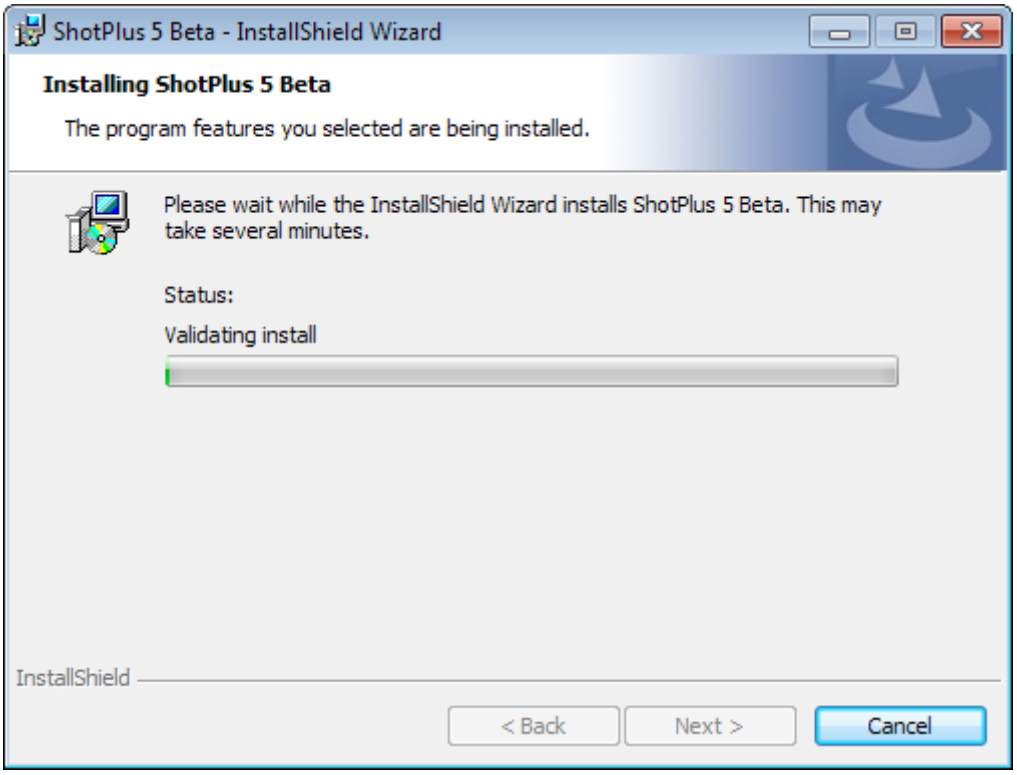
11. Select **Next**.



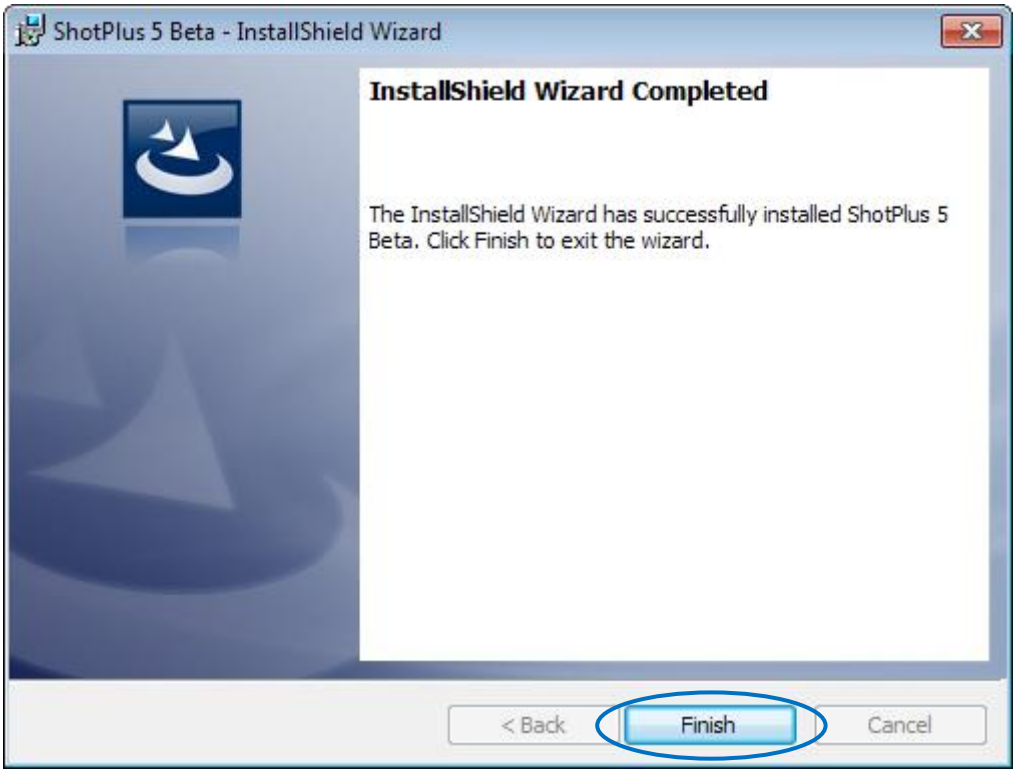
12. Select **Install**.



The *InstallShield Wizard* installs the software.

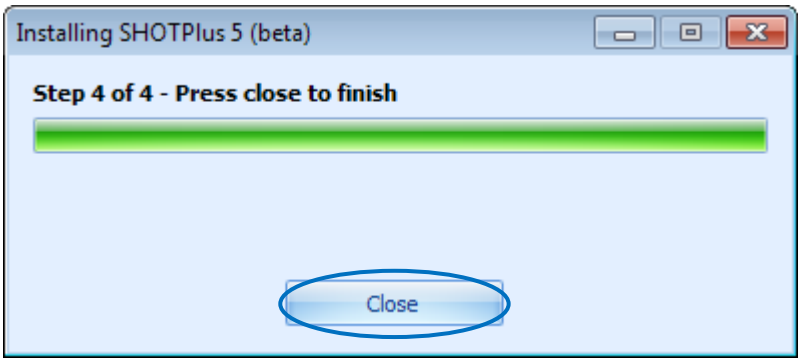


13. Select **Finish**.

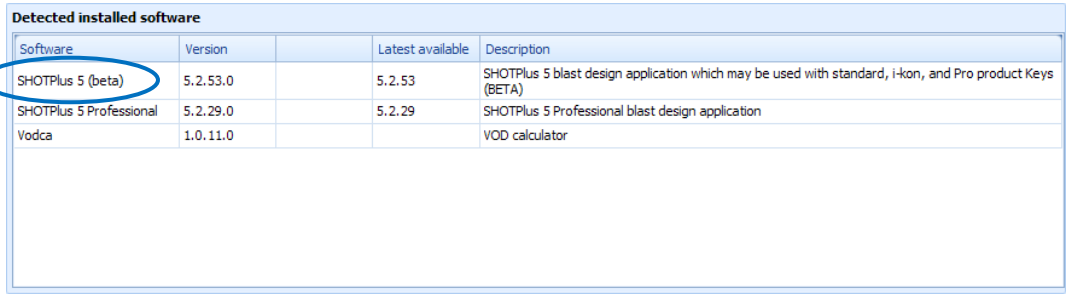


The user is returned to *Blaster's Desktop*.

14. Select **Close**.

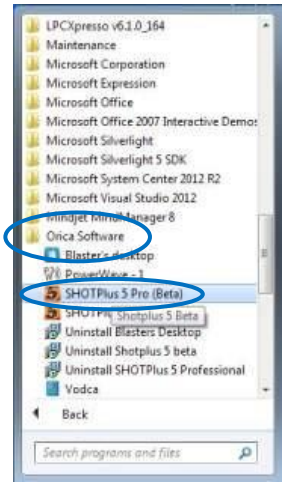


SHOTPlus 5 (beta) now appears in the **Detected installed software** list.

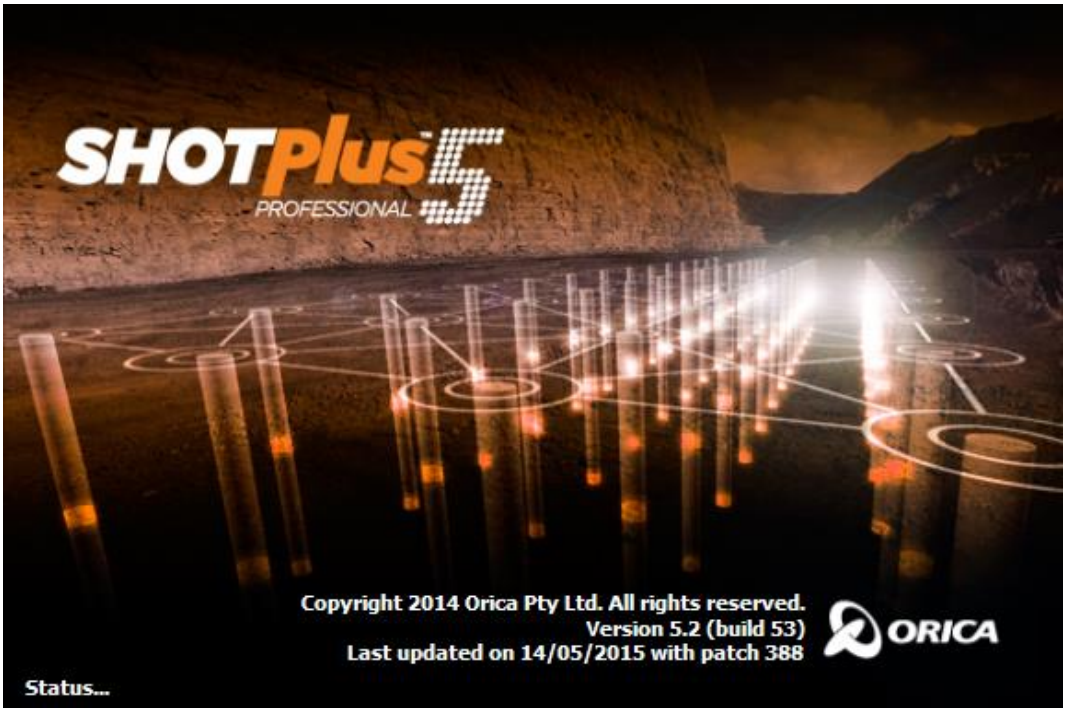


10.6 TO OPEN THE BETA VERSION

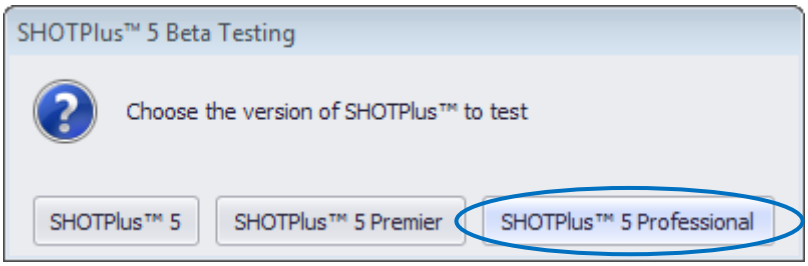
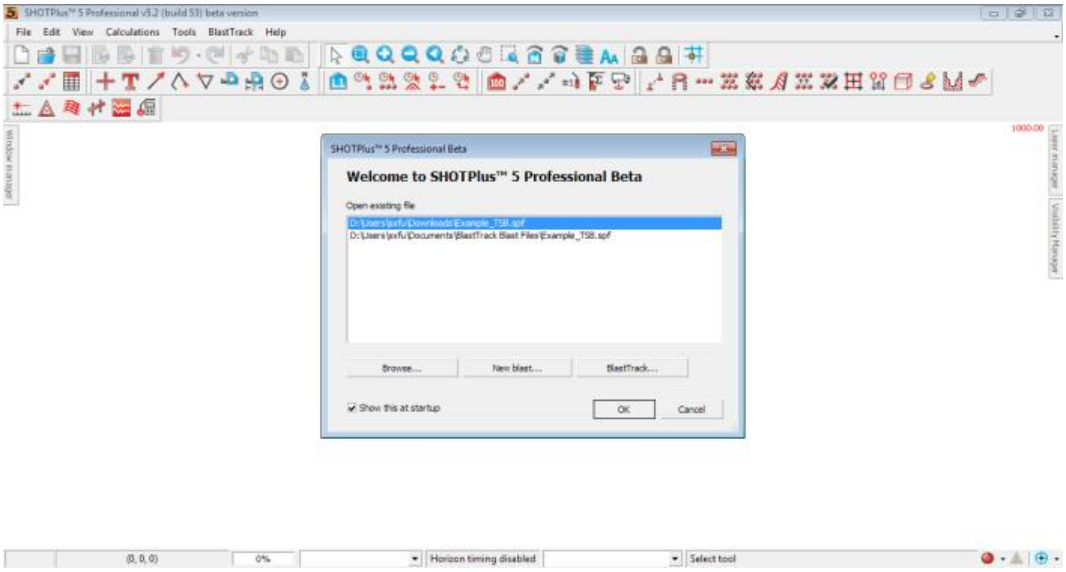
1. Select **All Programs** / **Orica Software** / **SHOTPlus 5 Pro (Beta)**.



SHOTPlus 5 loads.



Users operating as beta software testers can select to test *SHOTPlus 5* in standard, premier or professional grades. This box will appear every time the program is started.



SHOTPlus 5 will open in the chosen grade. A *Start-up Assistant* will appear.