BOURGAULT

# X30 Apollo System | X30 Bridge System


TOPCON
Precision Agriculture

# Features and Benefits

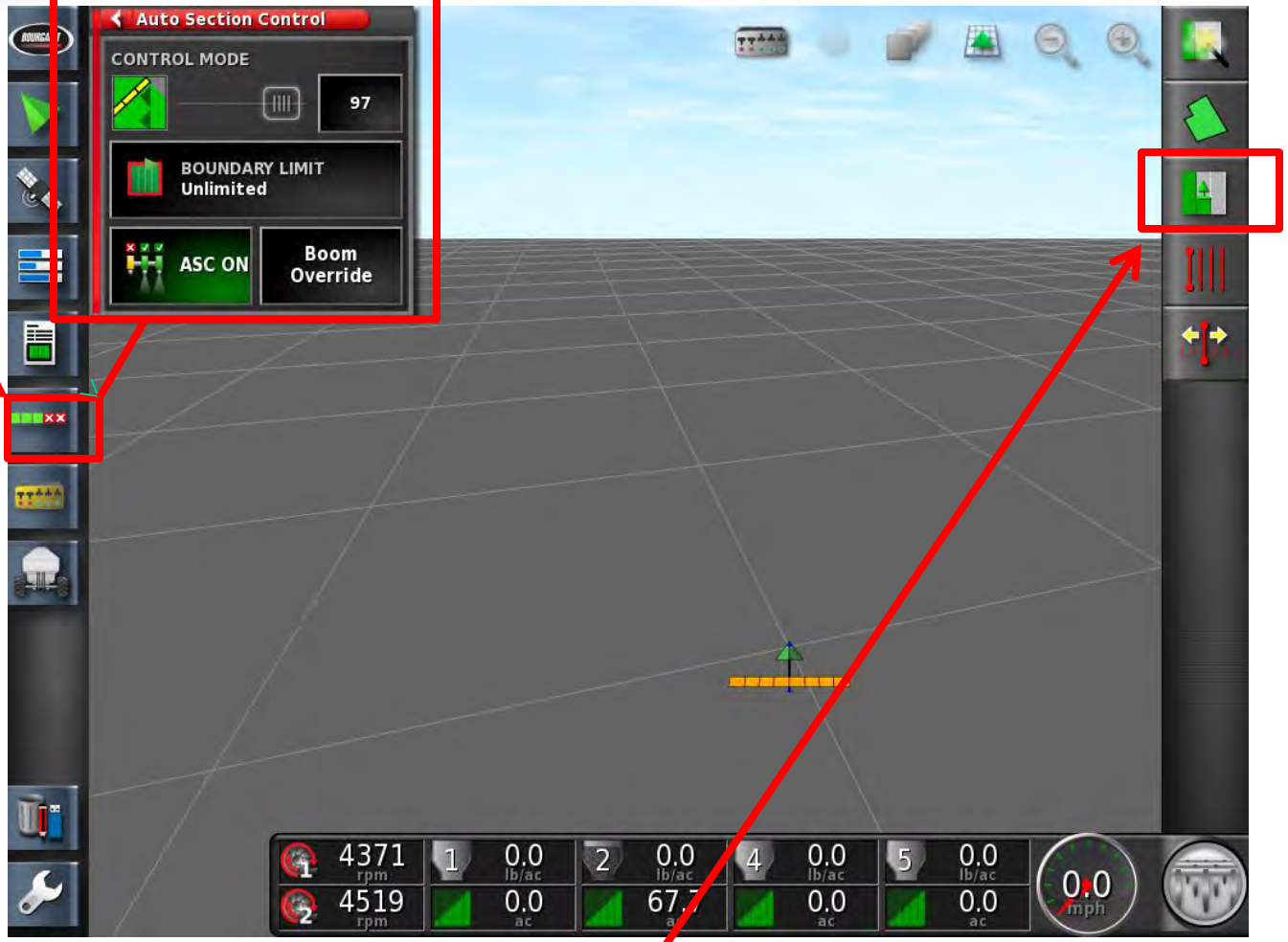
1) Bare Minimum to Start a New Job for ASC
2) Quick Start
3) How to Create Field Names
4) How to Start New Jobs
5) How to Record a New Boundary
6) Headland Manager
7) How to Import a Boundary from a Third Party Shape File
8) Loading a VRC Map
9) Job Reports

CHAPTER 1

# Bare Minimum to Start a New Job for ASC

Some operators do not wish to save any Job Reports, use Headland Manager or Variable Rate Control. In these cases the customer can set up Quick Start so that they only have to press one button or follow the steps on the following pages.

ASC Mini View selected, Boundary Limit set to Unlimited and ASC “On”




Press Job Menu tab


Press the Create New Job tab


Press the green check and you are ready to go!

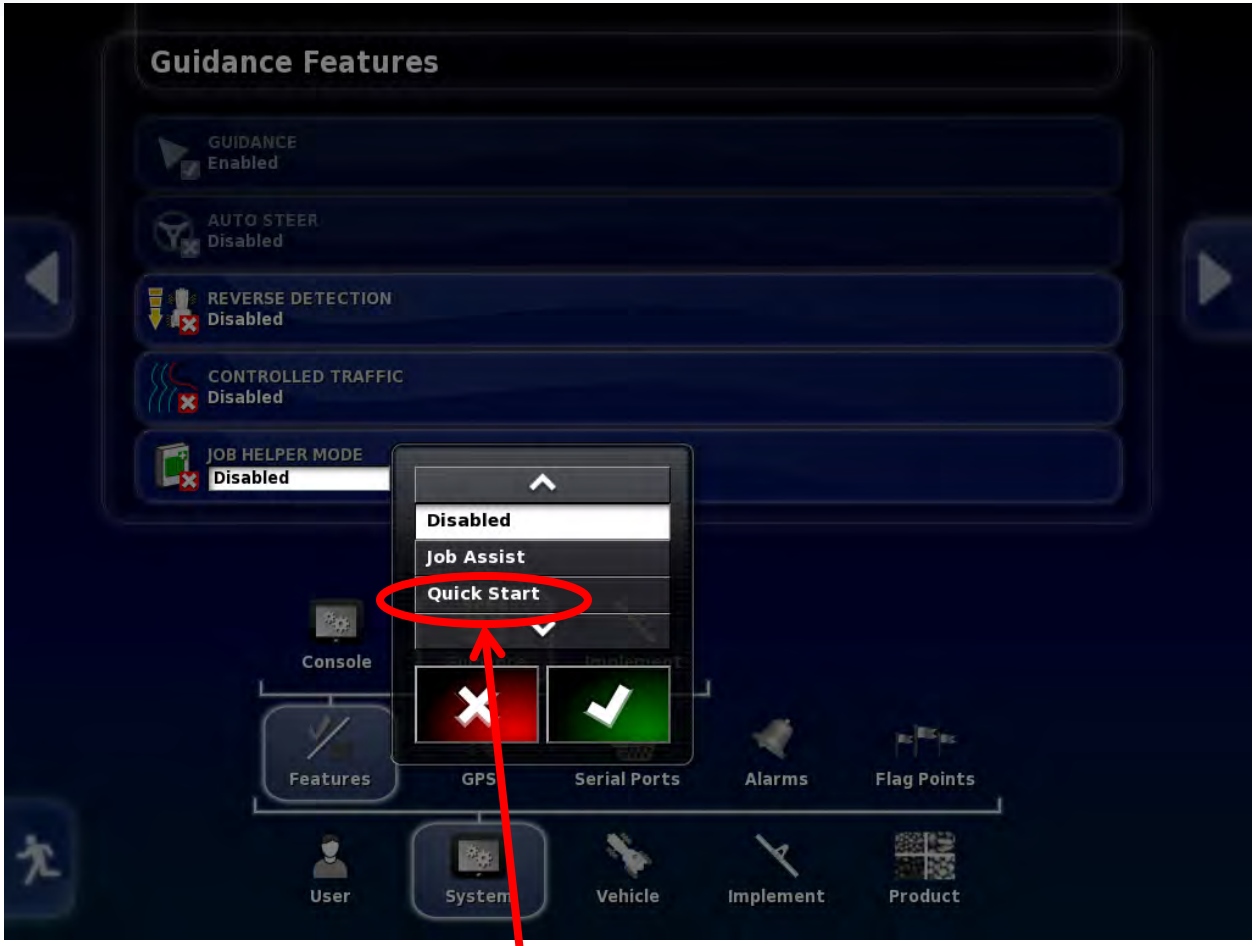
Chapter 2

# Using Quick Start

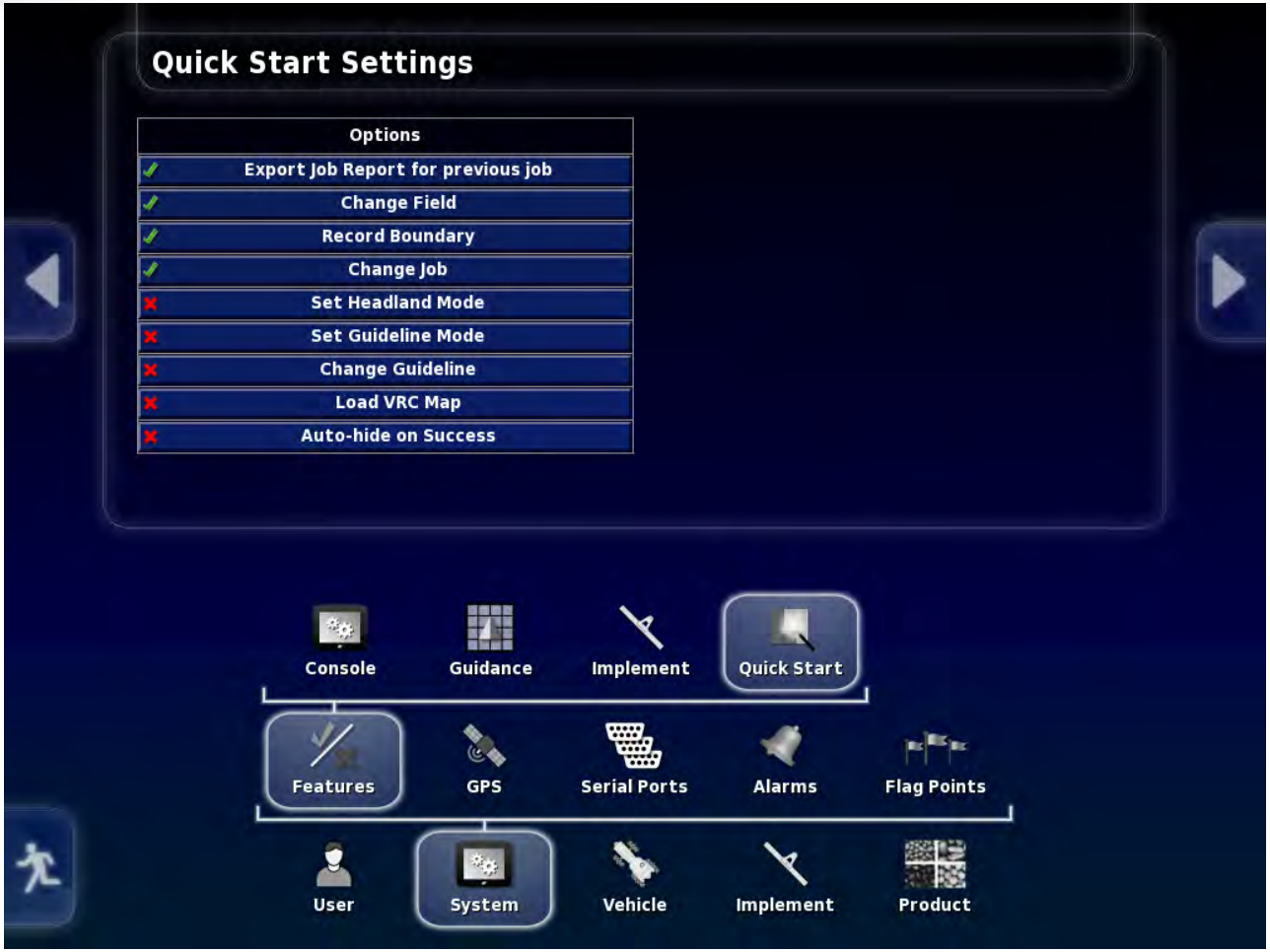
**The following steps will help you enable and use Quick Start**.

- **Quick Start is a program designed to start important functions that are crucial for the proper operation of some options such as auto section control and VRC.**
- **These important steps will simplify some of the more complex steps that many operators have difficulty remembering.**

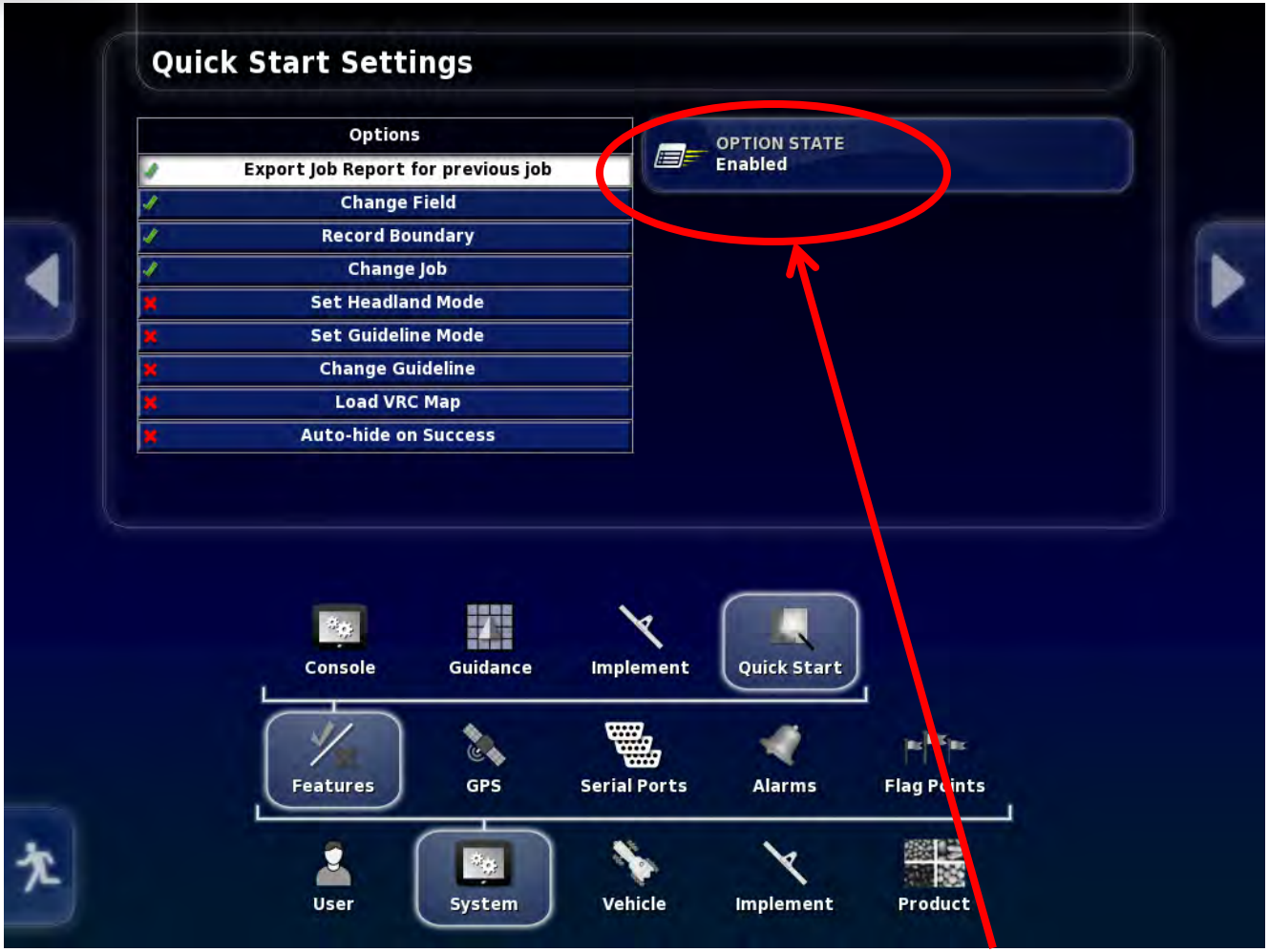

To enable Quick Start, go to System/Features/Guidance




Select **Quick Start**

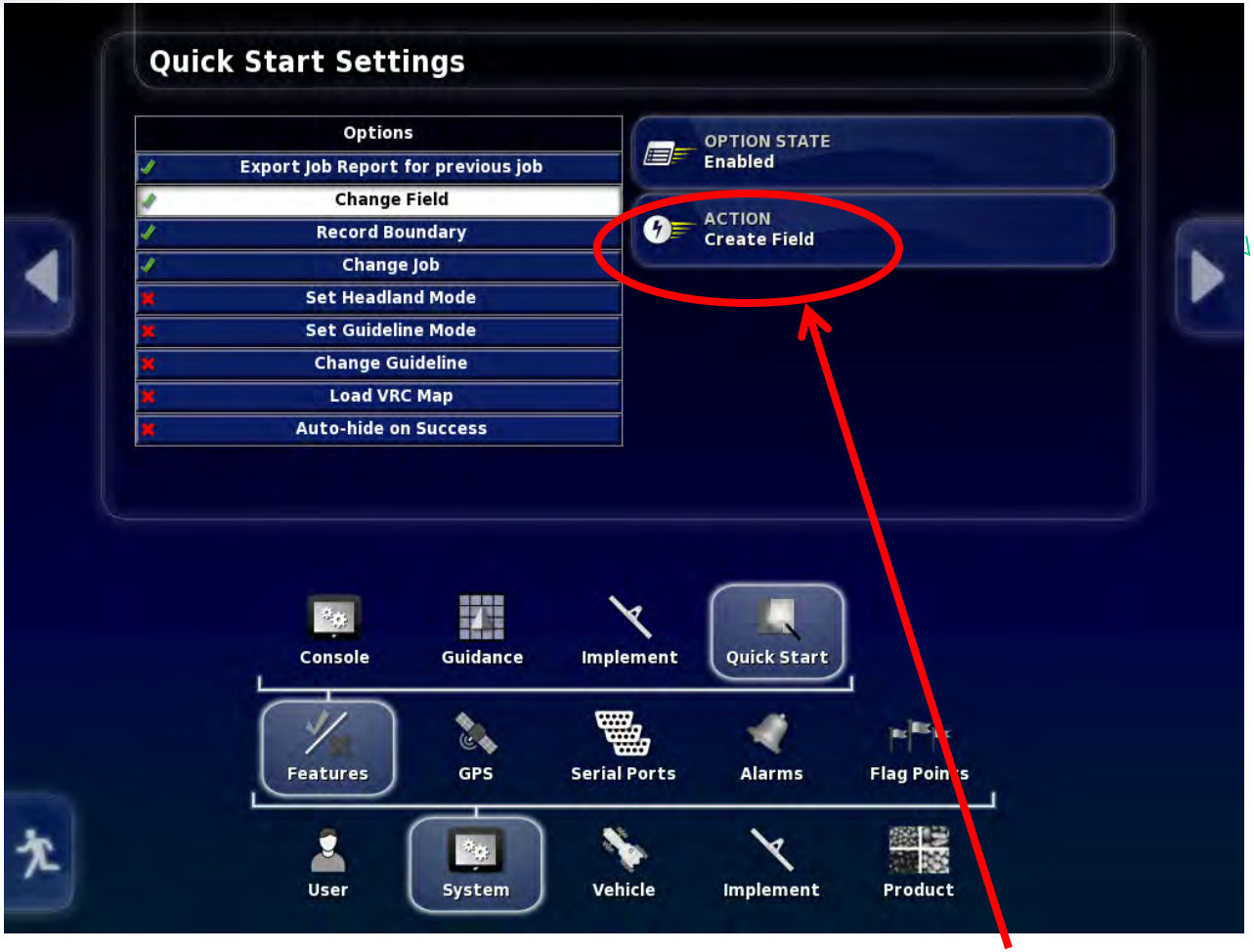



Select the new **Quick Start** Icon to pick the options.




With each Option selected you have the option to disable or enable it.


Export Job Report for previous job will allow a job report to be automatically exported to a USB memory stick when the **Quick Start** button is pressed in the guidance section.



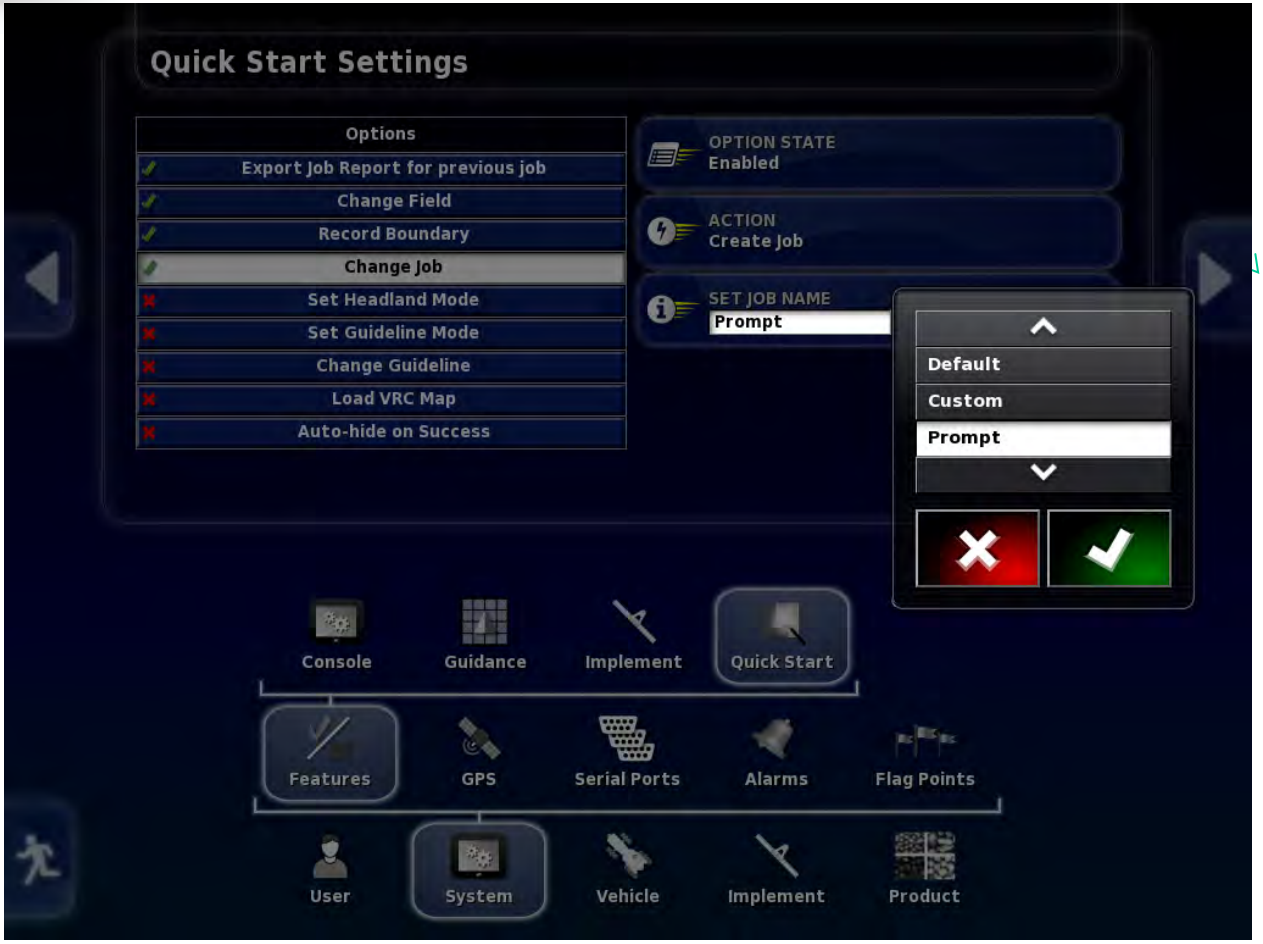

When **Change Field** is selected you may customize the Action


If the **Fields** are loaded with location shape files, you can select **Auto-Locate** Field or Select Field, but if you don't have field locations loaded then select **Create Field**.

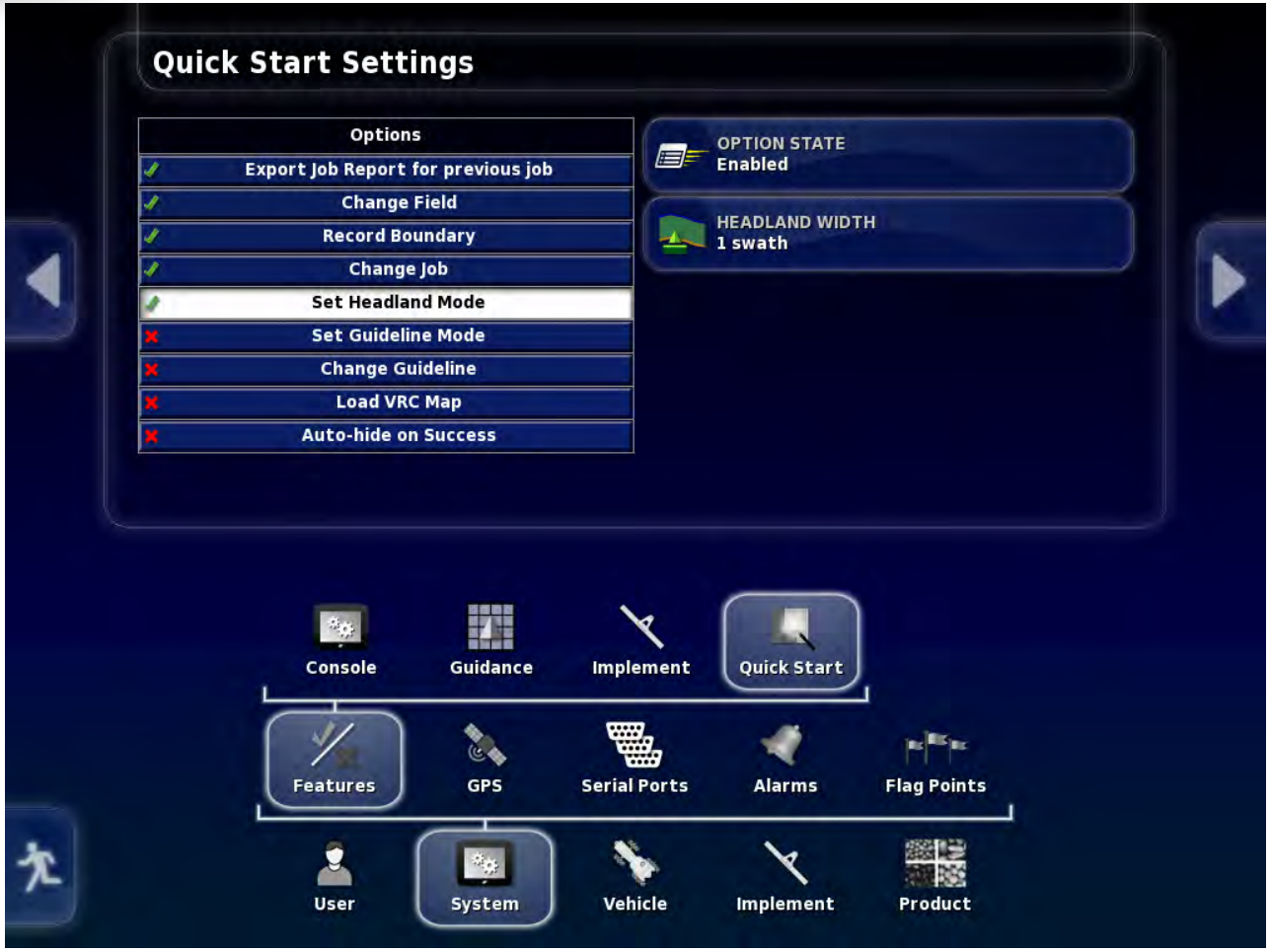

**Change Job** has more options!


**Change Job** will automatically start a new job; in this selection you can customize the **Action** to select a previously named job, or create a new job.


The **Change Job Action** choices are: **Select Job** (allows the selection of pre-named Jobs) or **Create Job** (directs you to create a new job name)

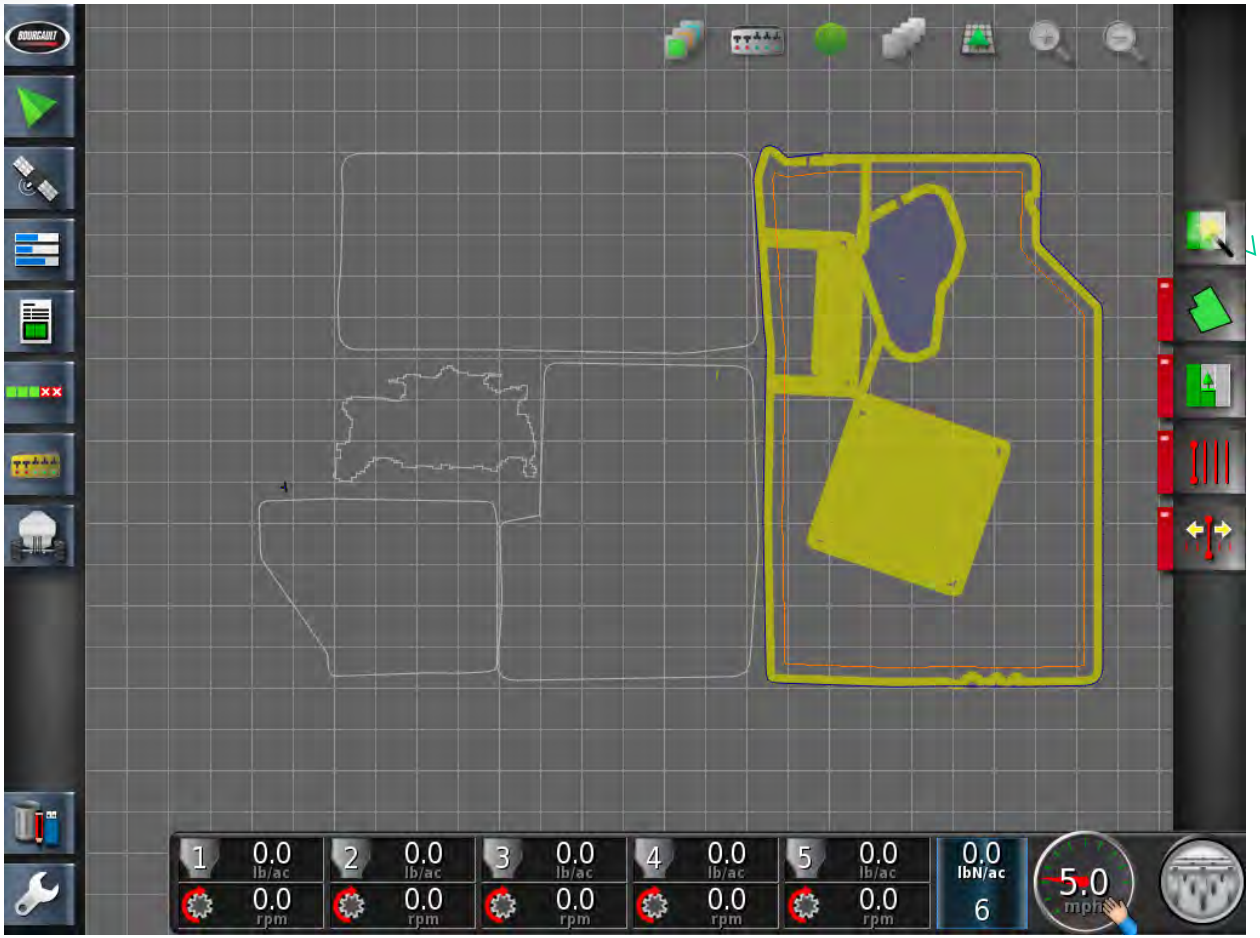



The **Set Job Name** allows you to choose **Default** (auto-generates a name), **Custom** (make a custom job name) or **Prompt** (starts the standard job selection process)

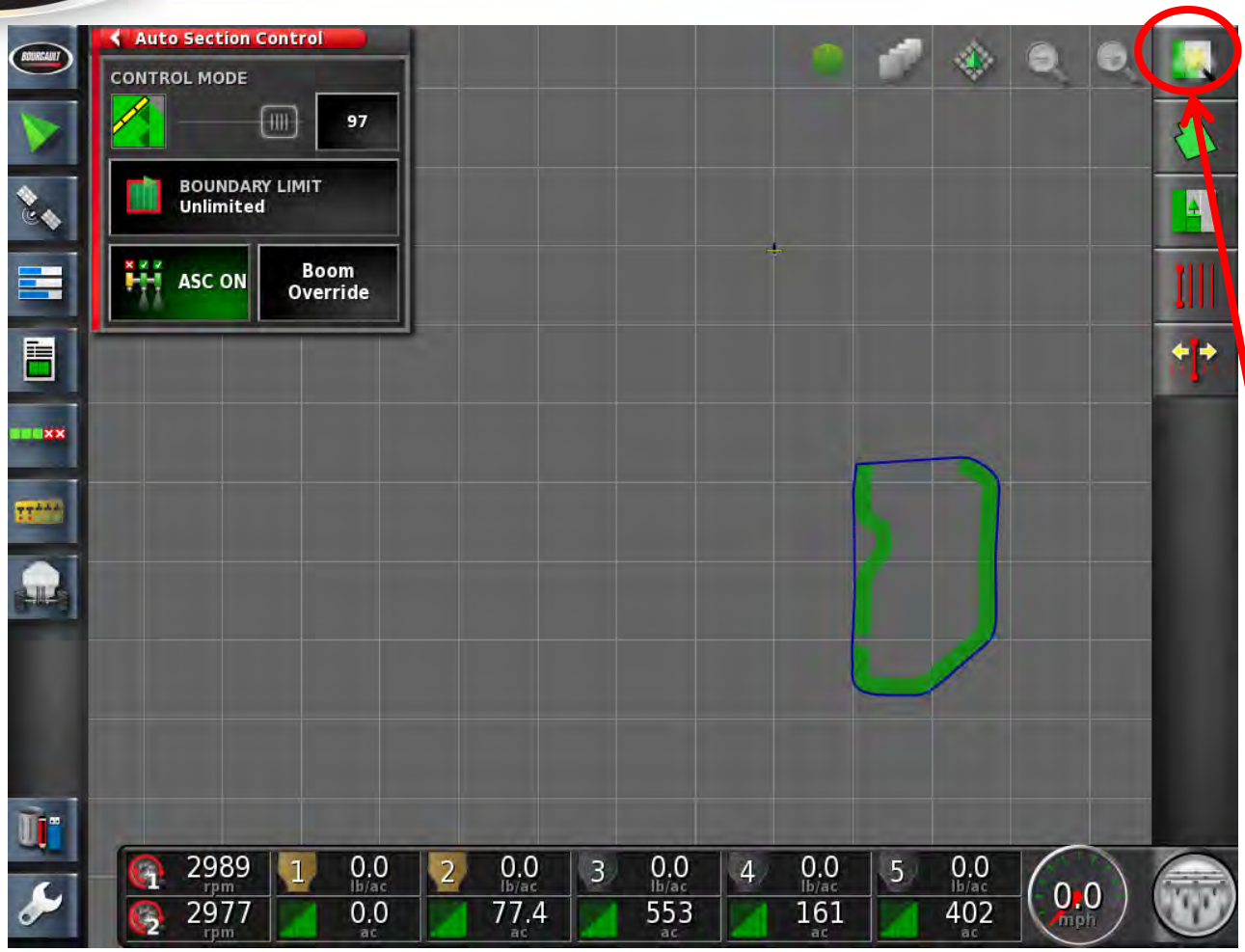



**Set Headland Mode** will automatically set a second boundary in a predetermined number of swaths (Allows you to seed the headlands last).

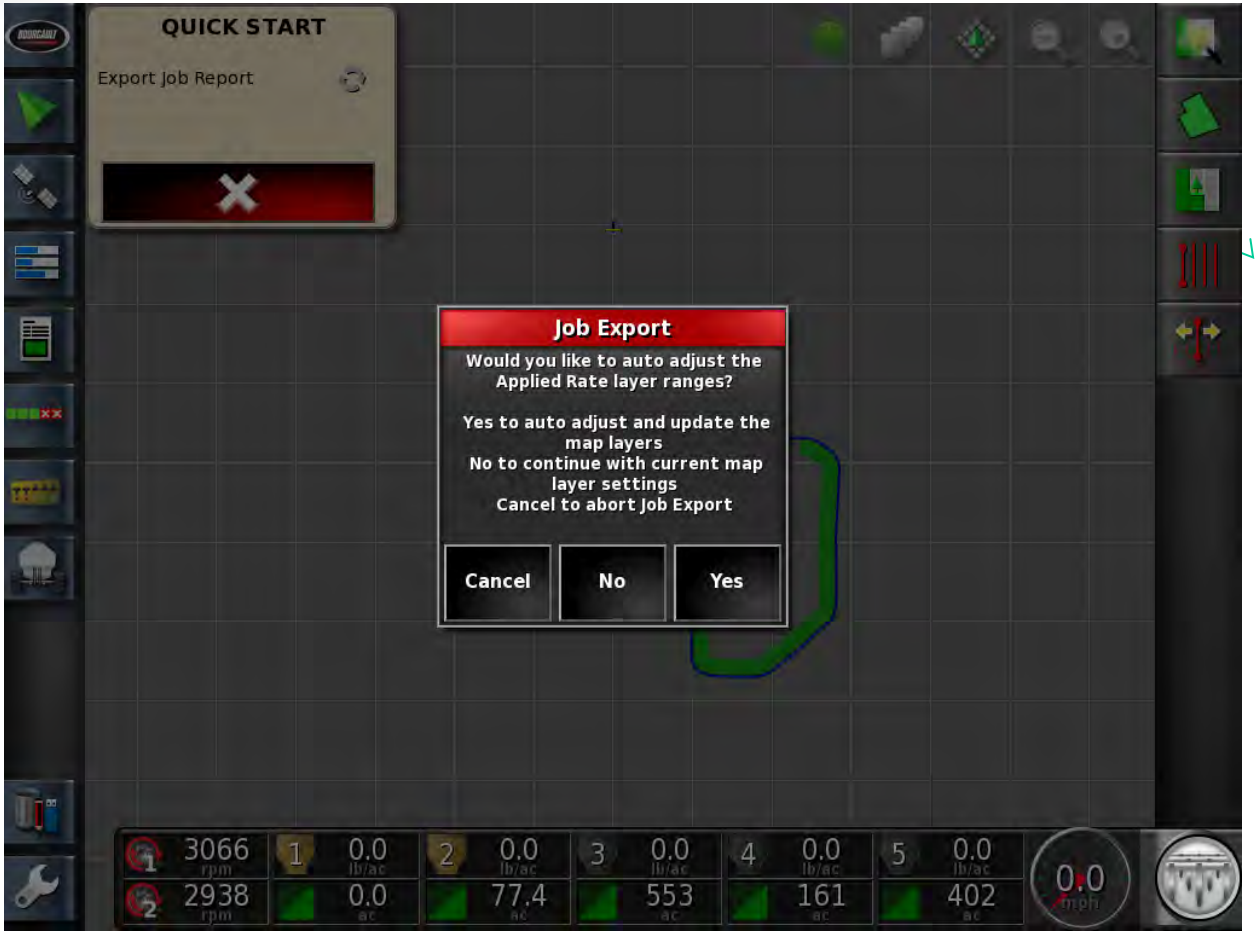

You may select the number of headland swaths here.



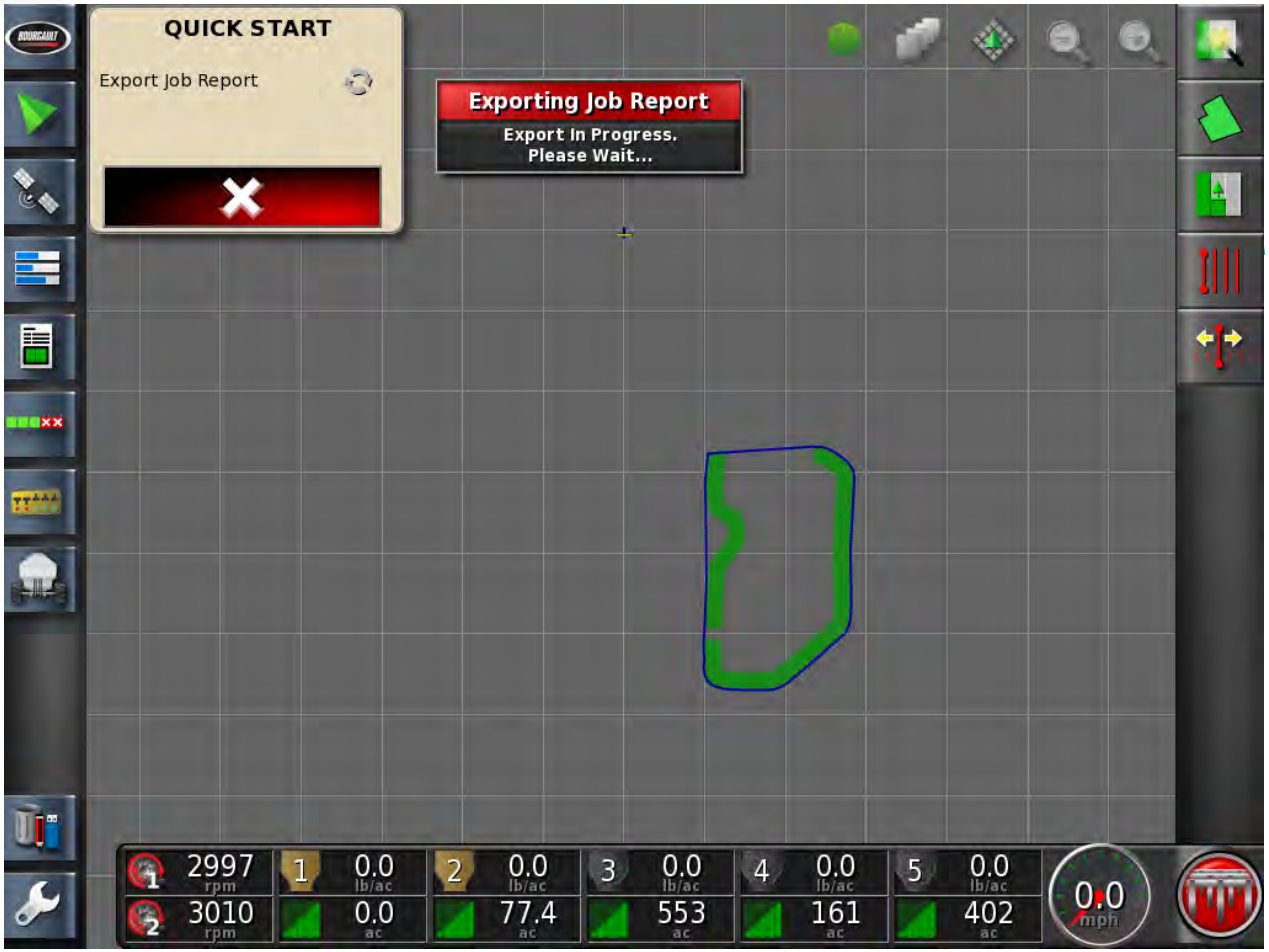

The example above shows the outline of previously recorded boundaries in light grey and the current field in yellow. The next pages are an example of what the process looks like when the **Quick Start** button is pressed with the options previously selected.



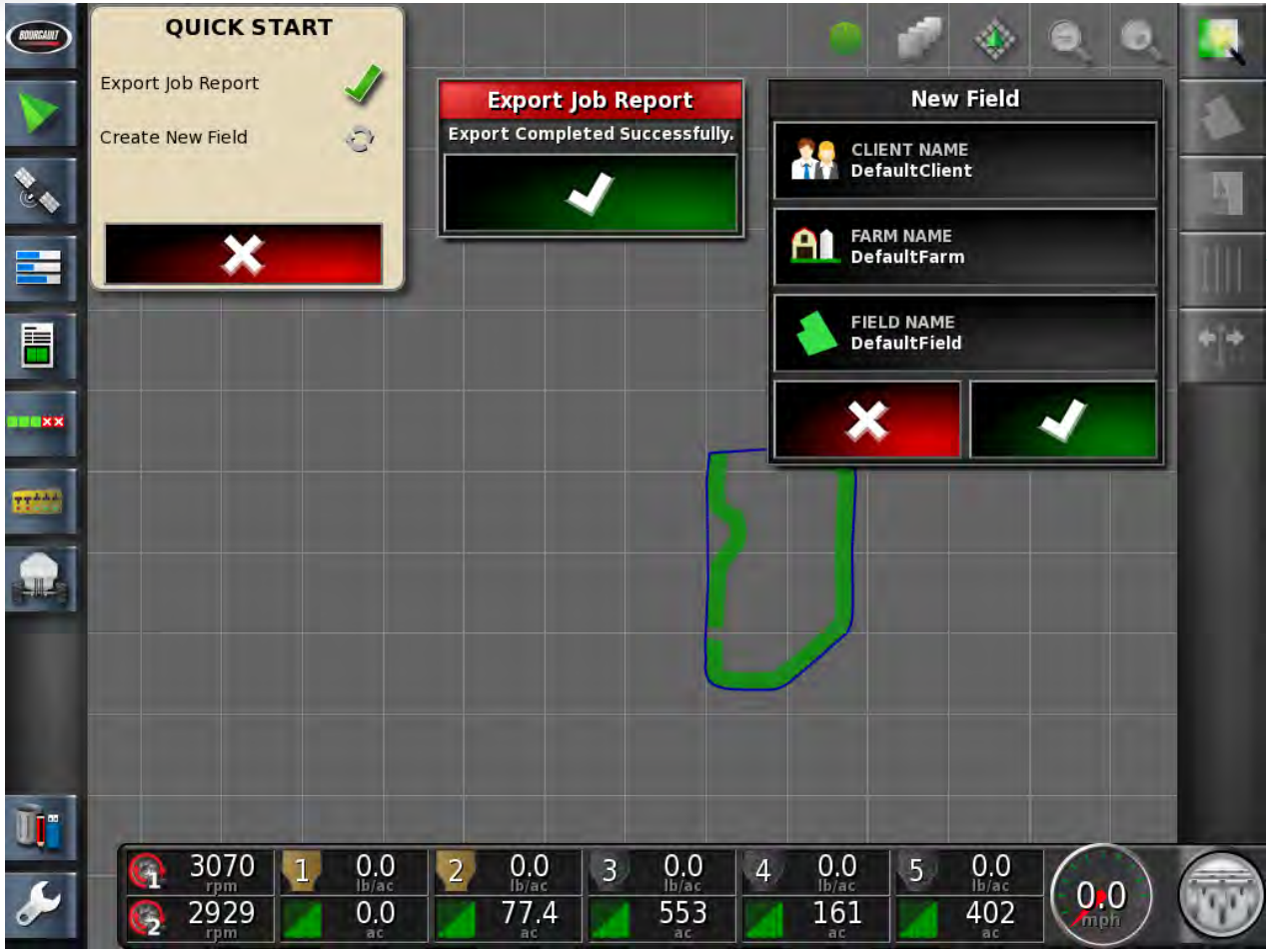

With a USB memory device installed in one of the USB ports, press the **Quick Start** Icon.



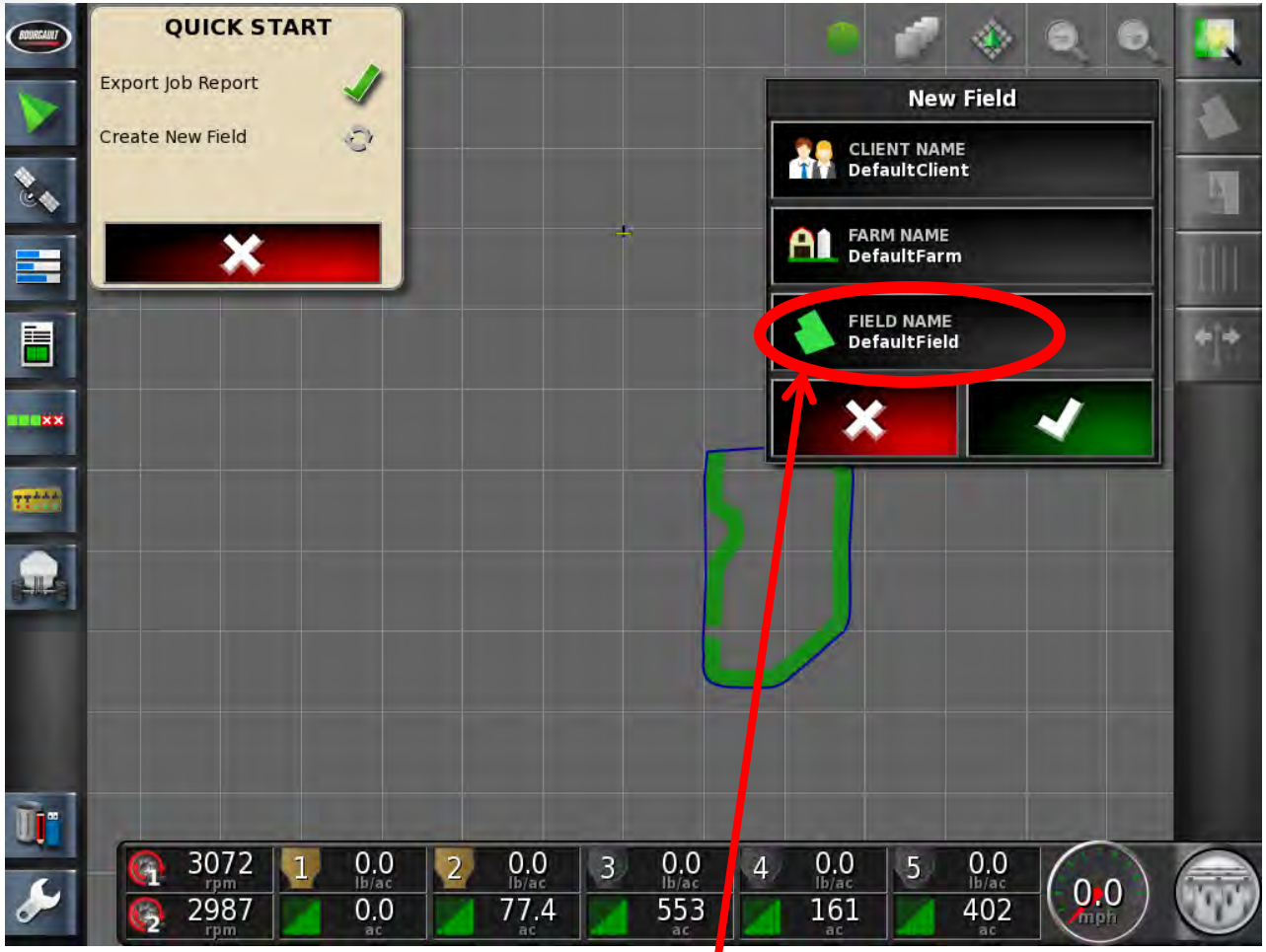

Export **Job Report** to USB memory stick is the first step. At this point, it will ask some details about the map layers for the **Job Report.**



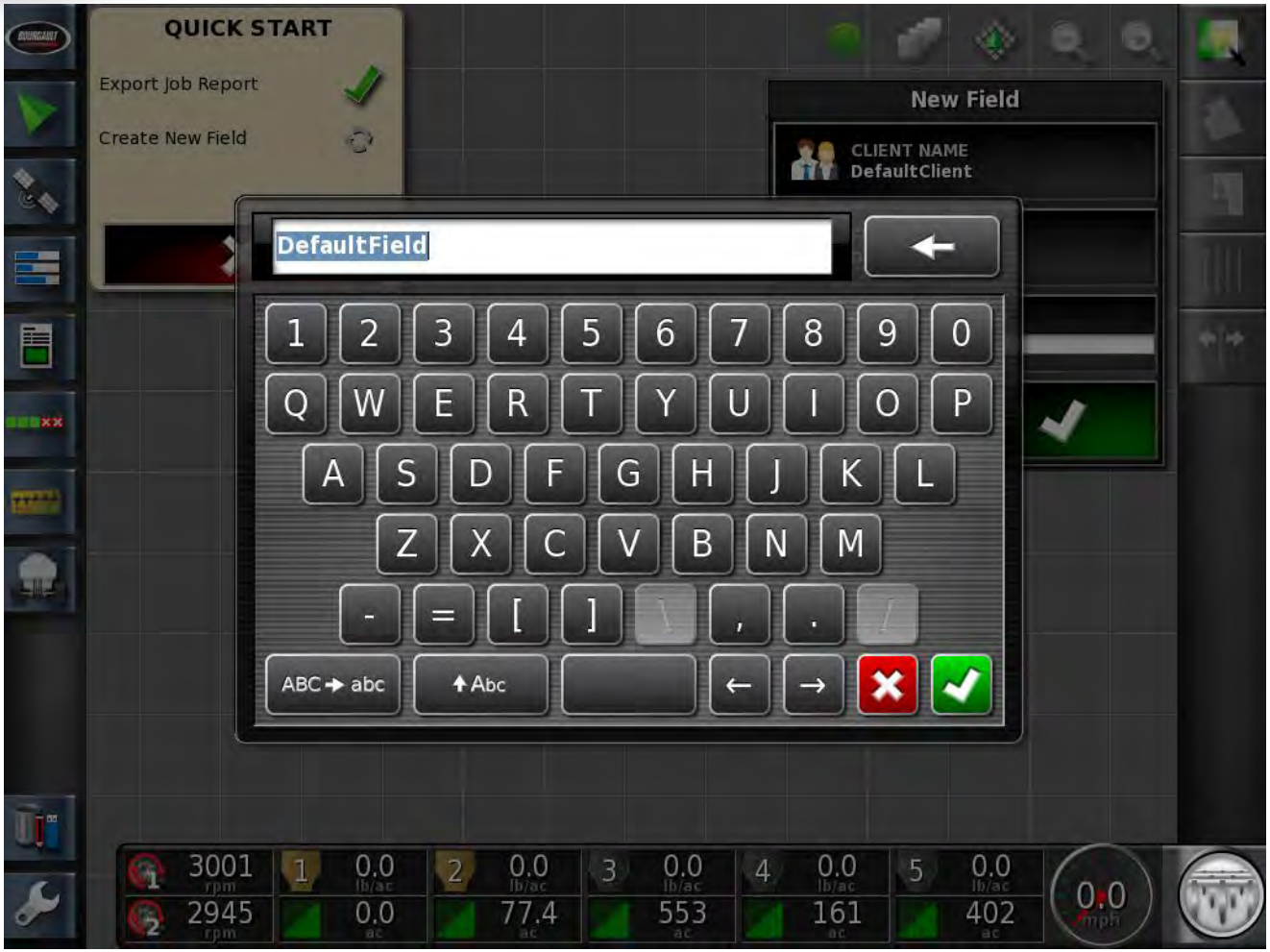

Wait for the **Job Report** to Export



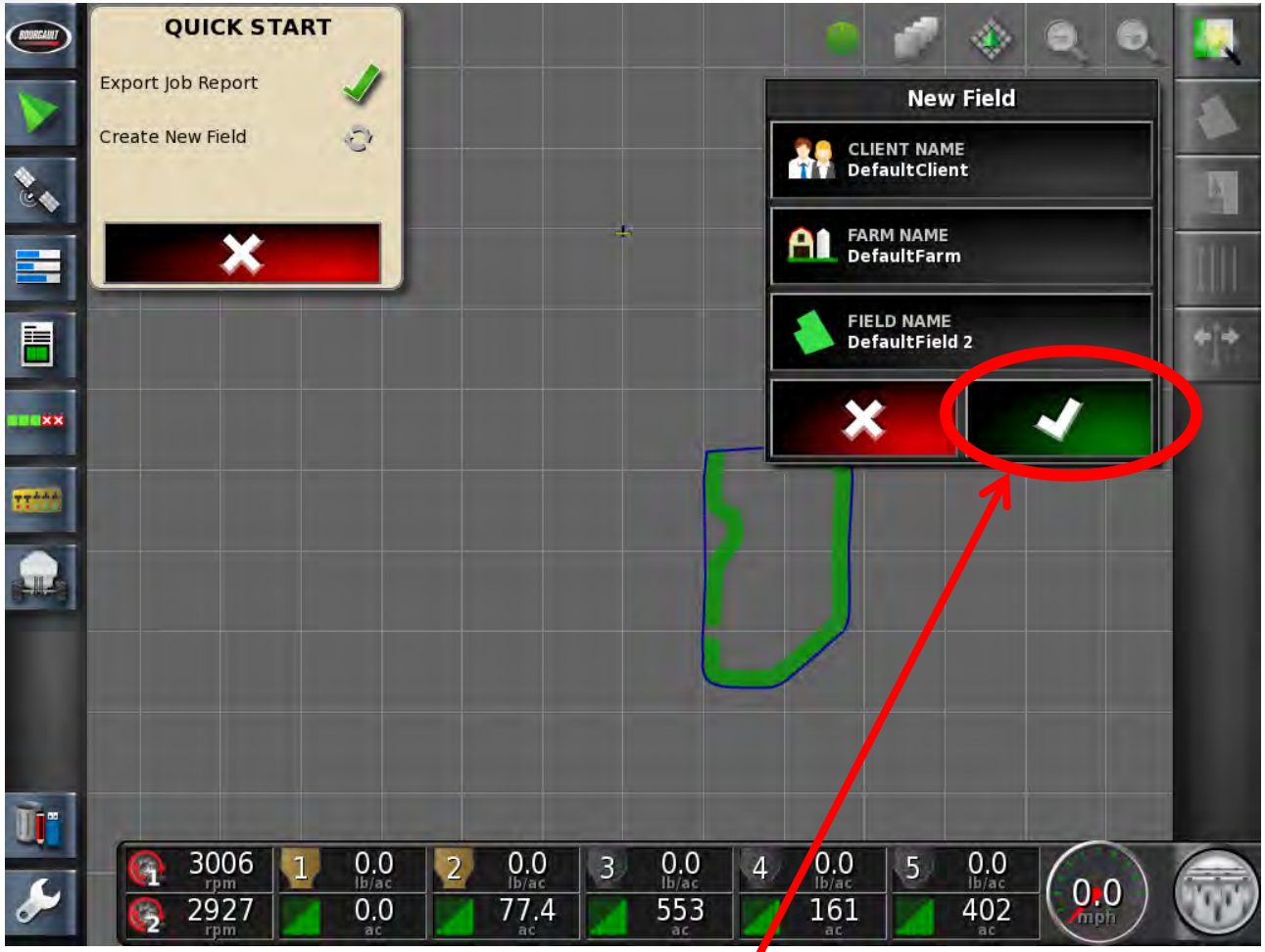

Show that the **Job Report Export** was successful.




Select the **Field**

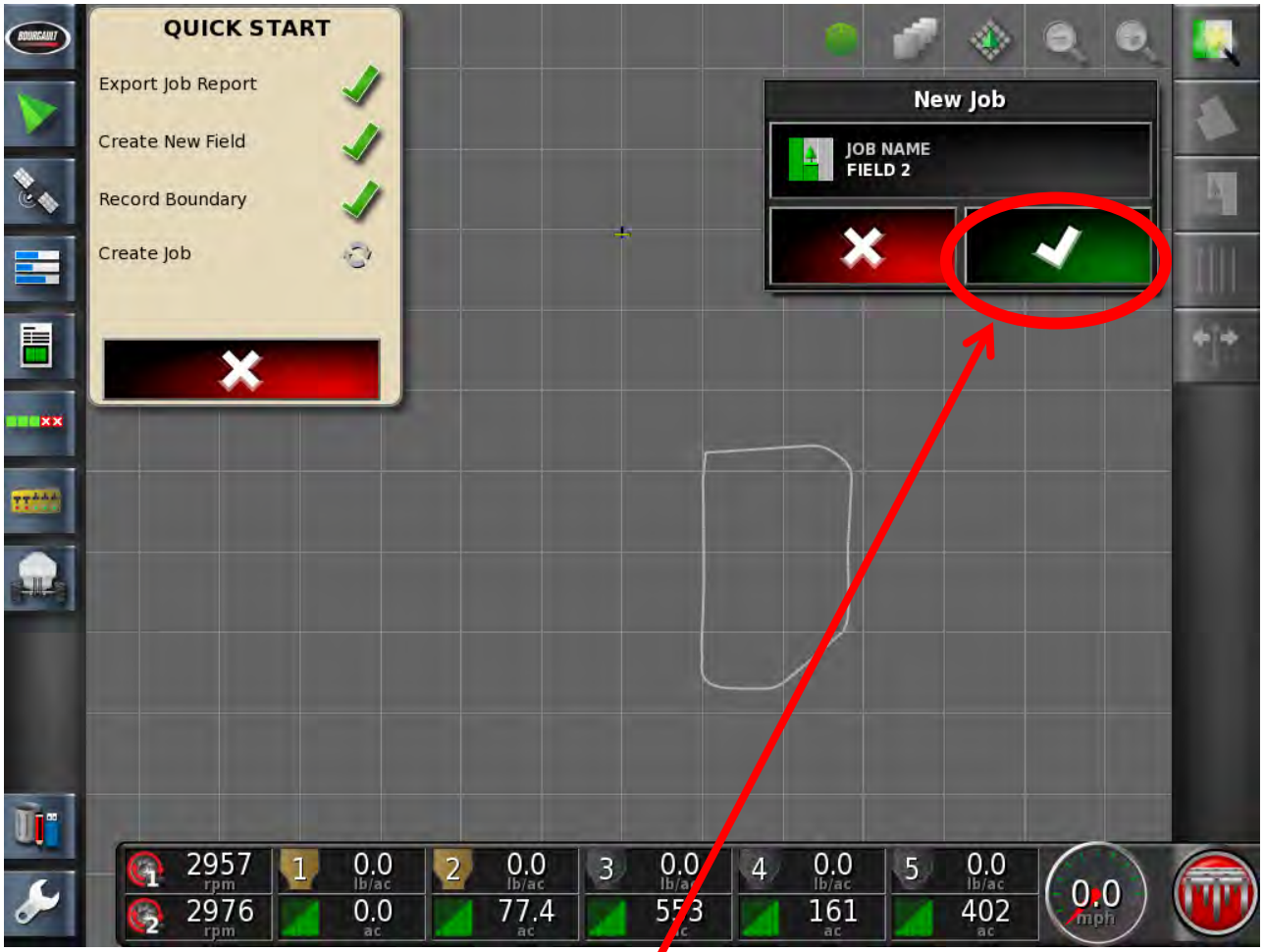



Name your **New Field**

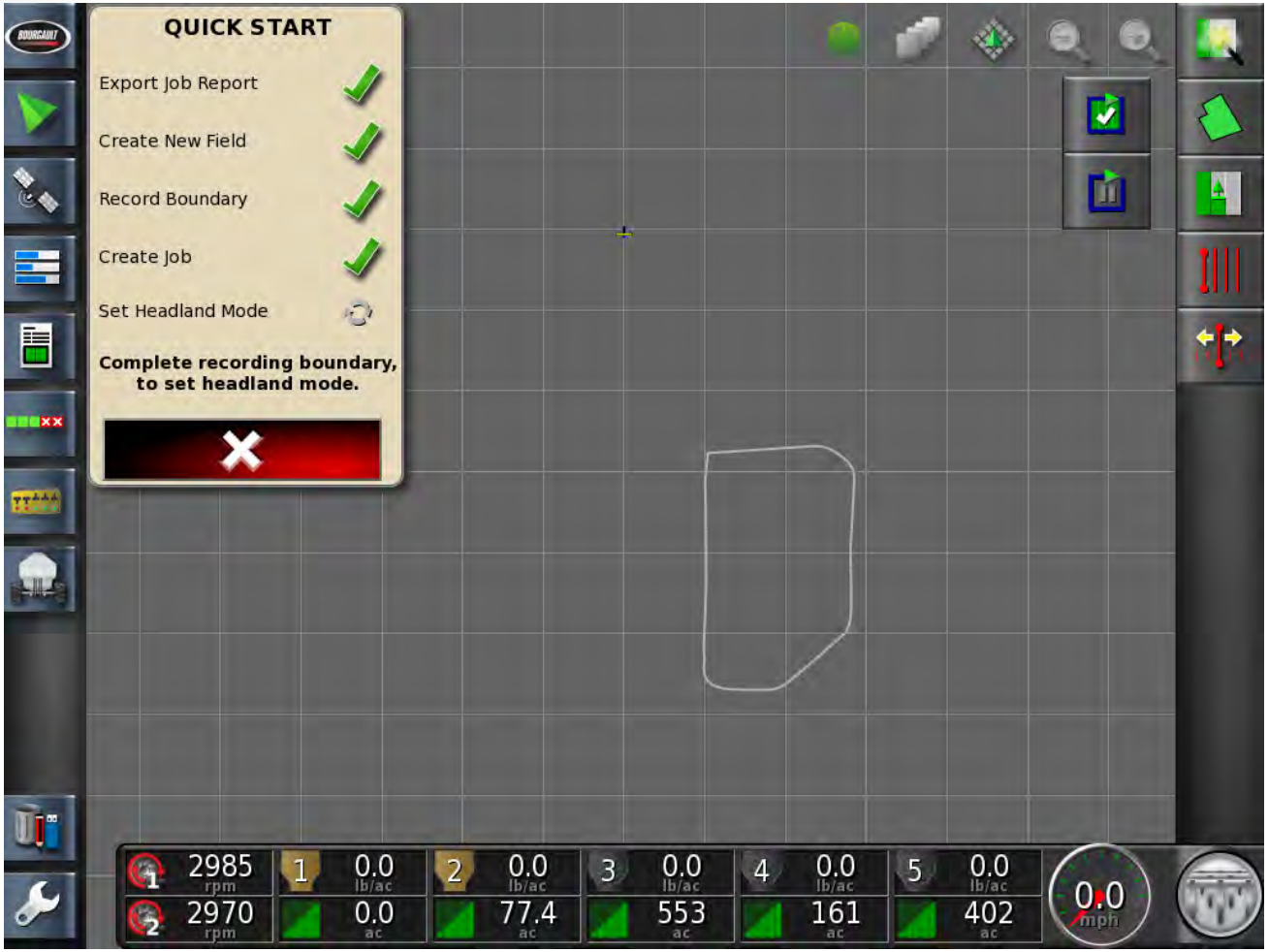



Review and accept your new **Field Name**

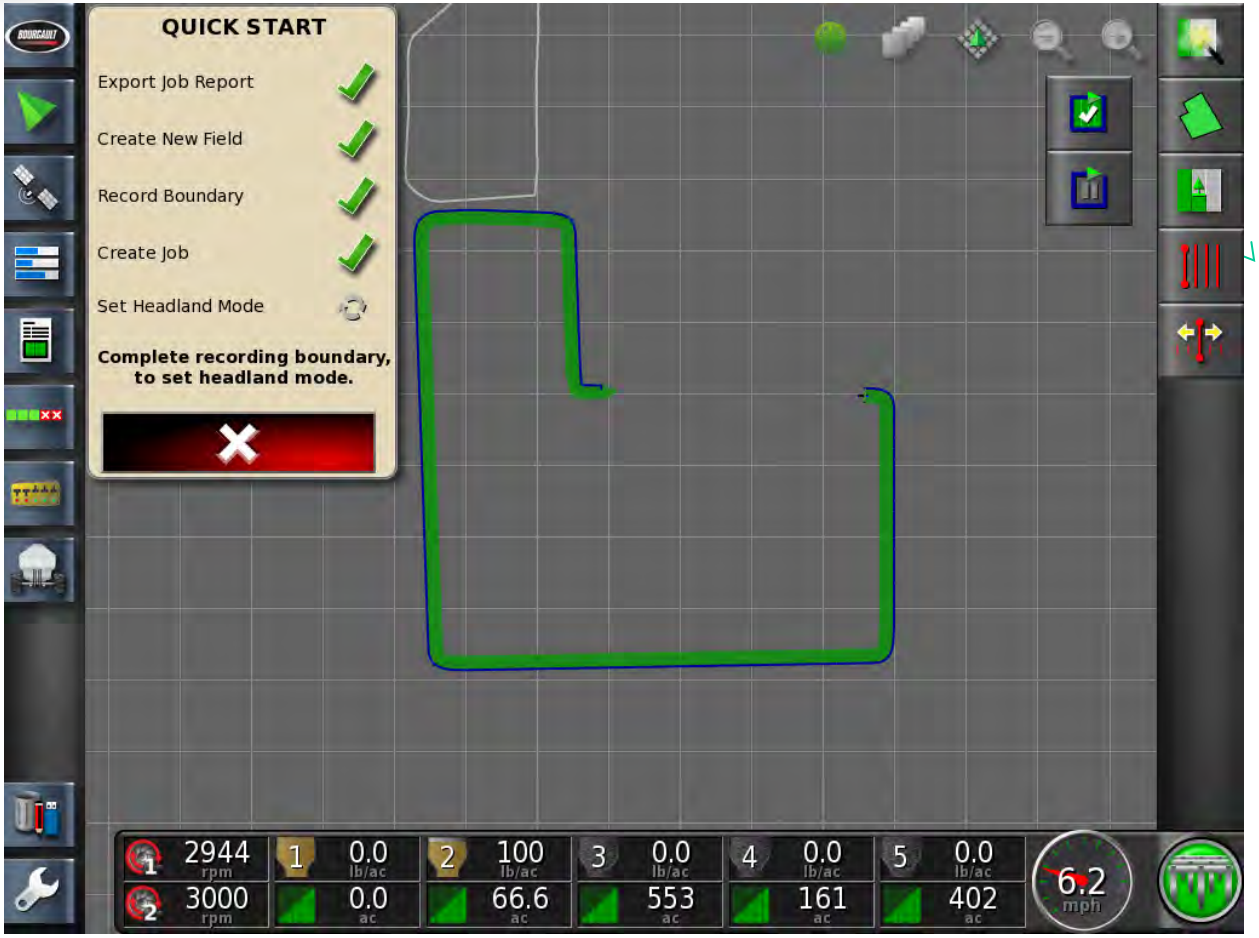

Name your **New Job.**



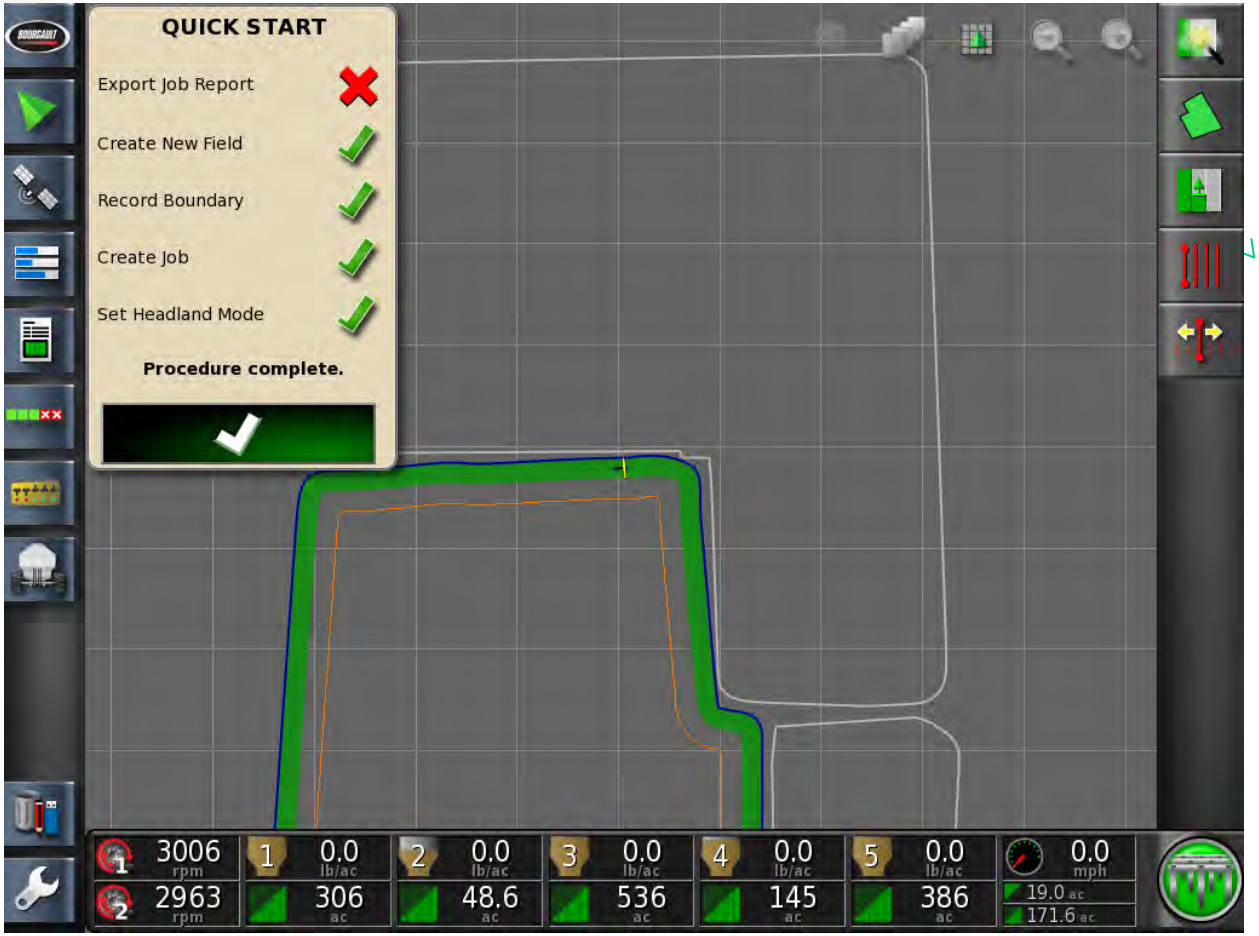

Confirm the **Job Name**.



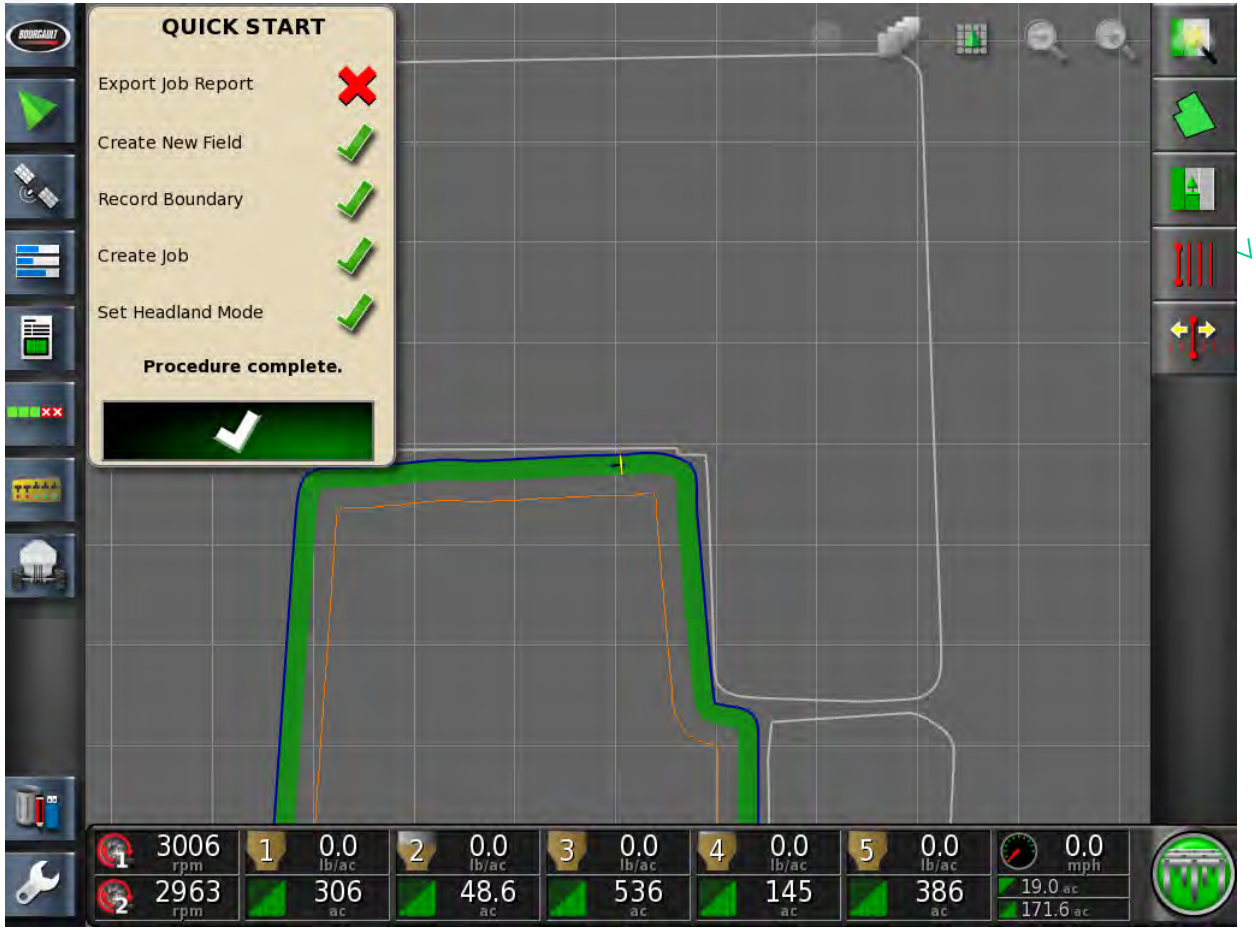

You are now ready to record your **Field Boundary**. See recording boundary power point.




Once your **Boundary** is complete, press the green check, or, if you wish to pause the recording, press the pause button.




Once your Boundary is complete, the secondary Headland will appear as a yellow line within the **Field Boundary**.

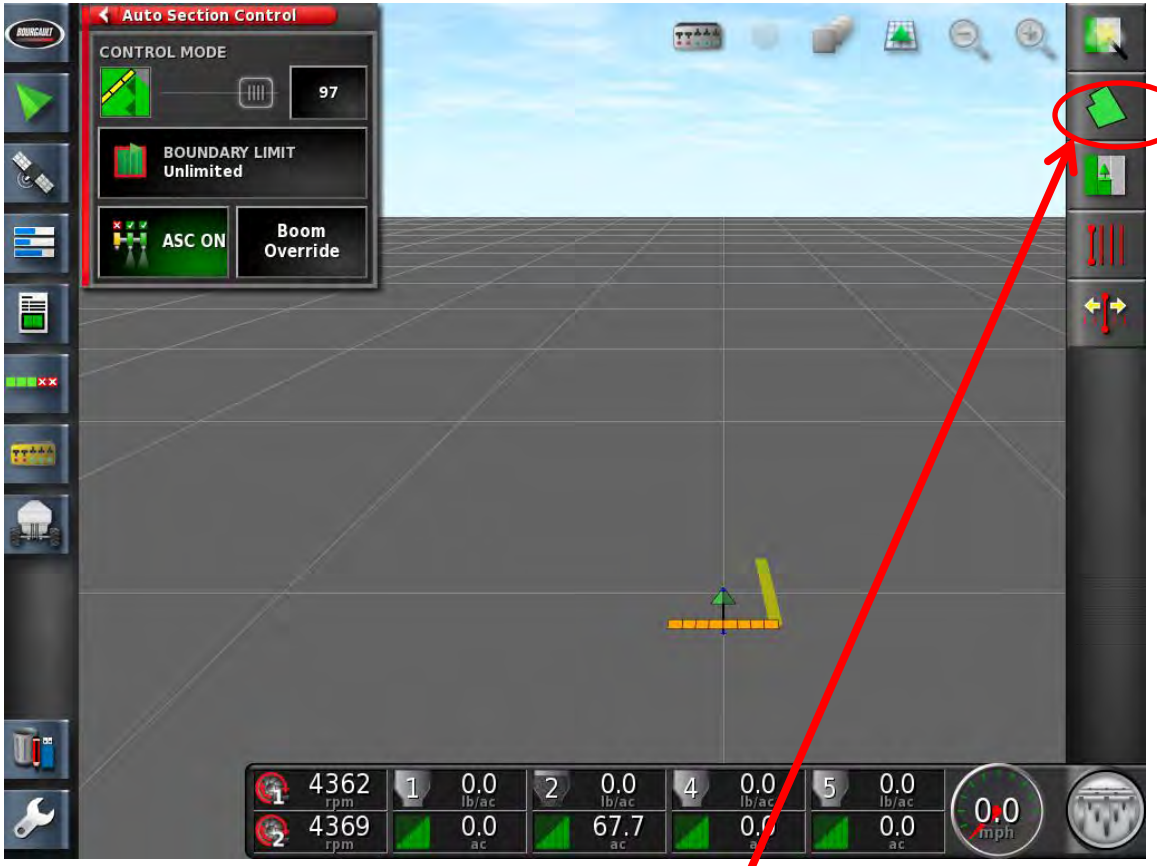



Once all of the Quick Start steps are completed, “Procedure complete” appears. Note that there is a **Red X** beside the Export Job Report, this shows that this was skipped by the operator.

Chapter 3

# How to Create Field Names

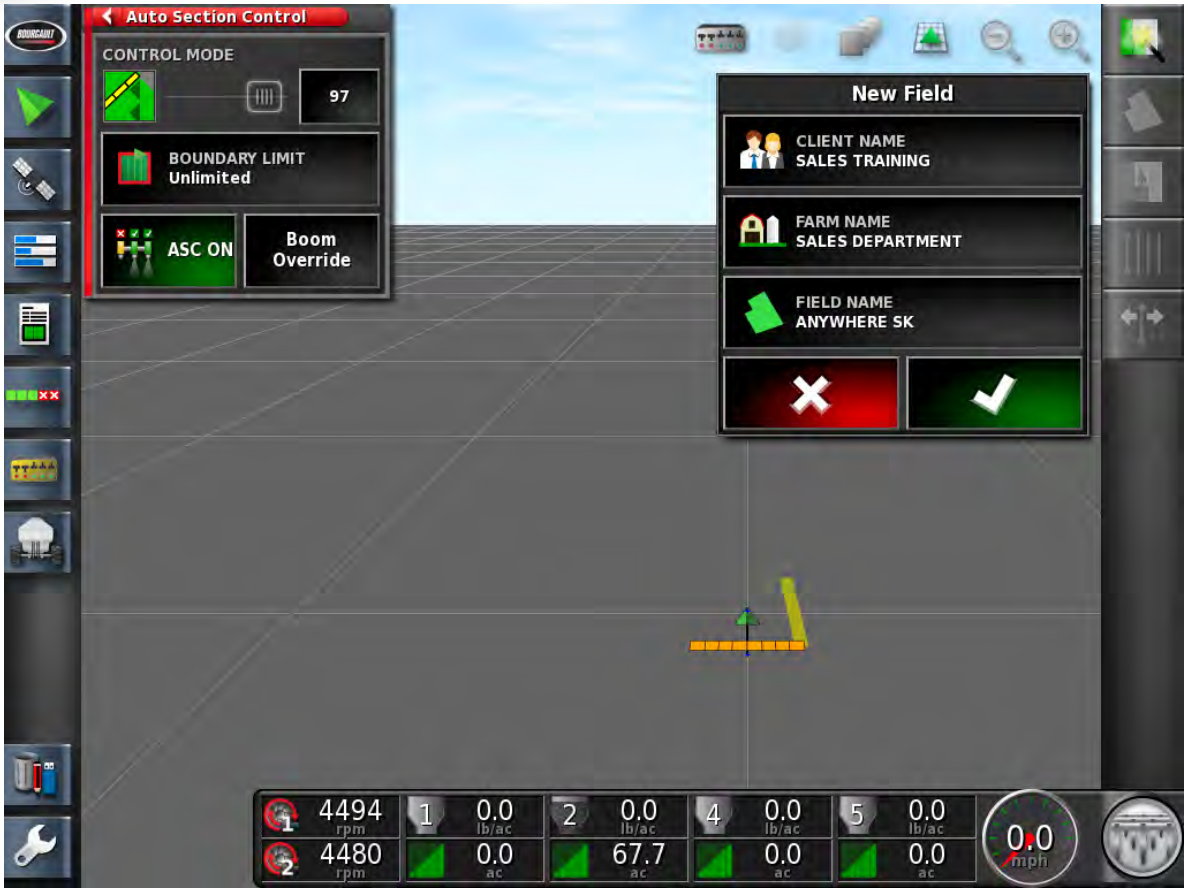
- Create **Field Names** in Advance.
- Set **Quick Start** can be set to prompt for a new **Field Name.**
- Select **Field Names** from a USB stick.
- Auto Select **Field Names** based on a geo location.




To Start a **New Field** or create **Field Names** ahead of time, open the green field tab.


Next to create **Field Names** in advance, open the green **Add Field** tab.


Normally the **Client** and **Farm Names** stay the same when the **Field Names** change.




In the example above we have created **SALES TRAINING** as a Client and **SALES DEPARTMENT** as a Farm. Multiple **Field Names** can be created for future work.


To select previously created fields press the blue **Select Field** tab.

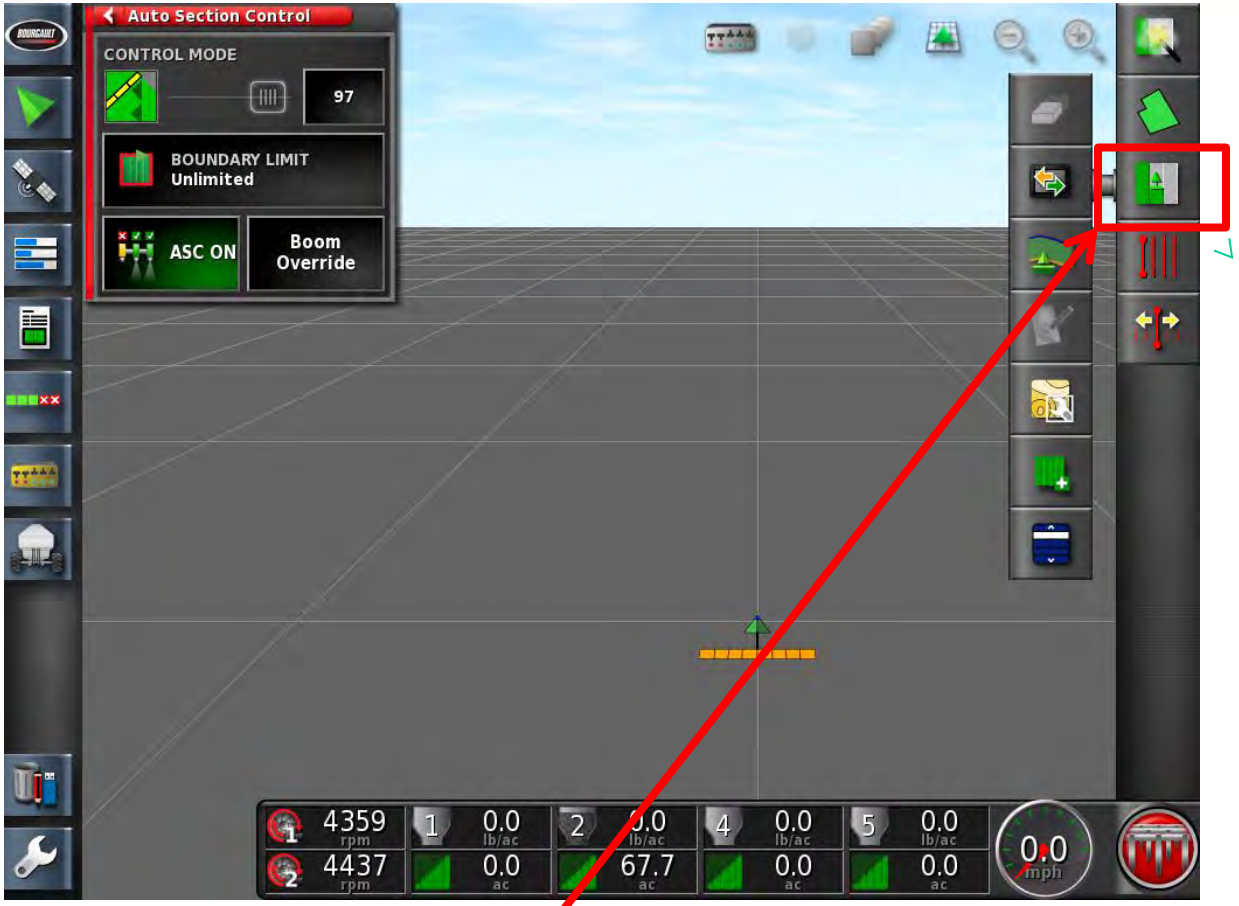

**Select Field** from list created with the X30, from the USB stick, or by Geo location.

Chapter 4

# How to start new Jobs

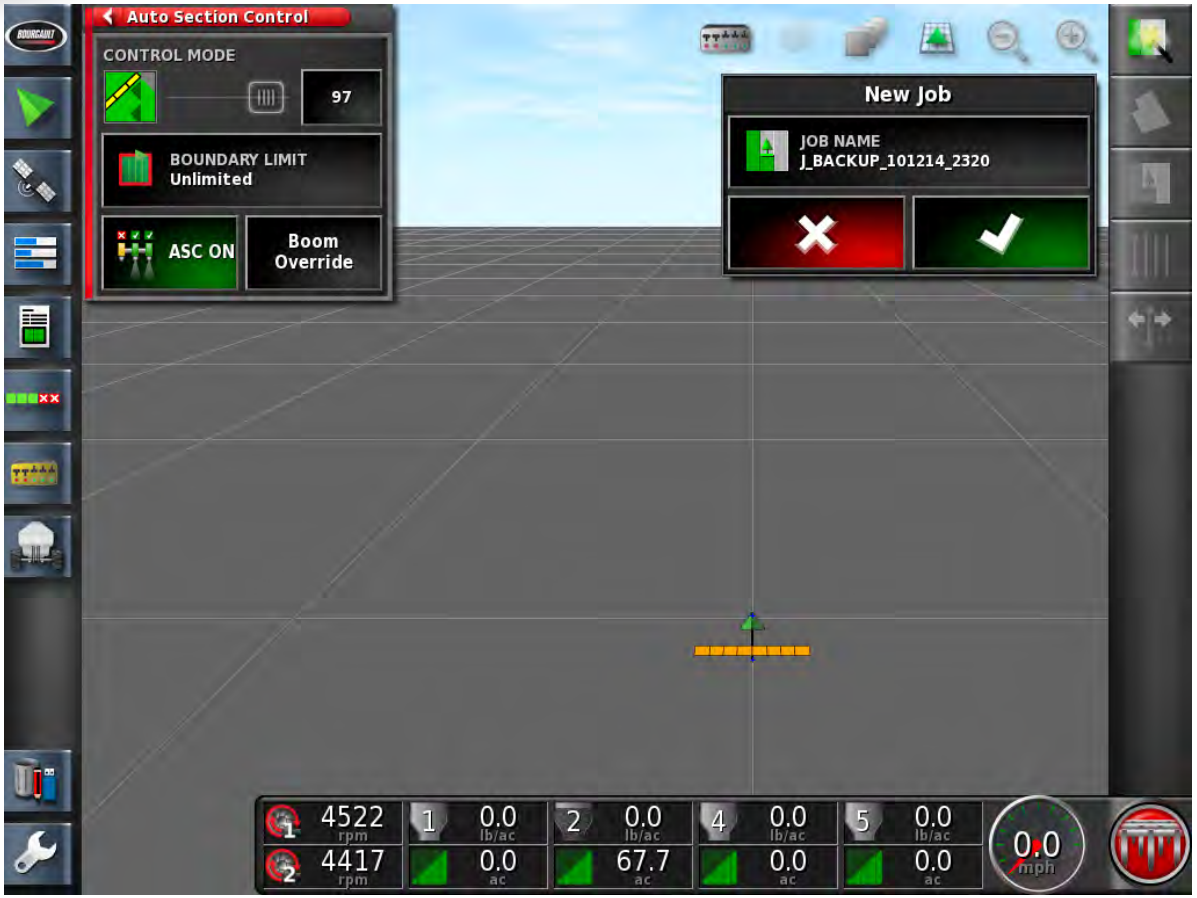
All of the higher end functions require the operator to start a new Job, this can be done a number of different ways.

- Use **Quick Start** to prompt a **Job Selection**
- Let the X30 auto generate a **Job Name**
- Select a previously named Job
- Select a Job from a USB stick




Open the Job Menu tab.


Press the green **Create New Job** tab.




The X30 will generate a name with the Implement name, date and time or you can create a custom name.

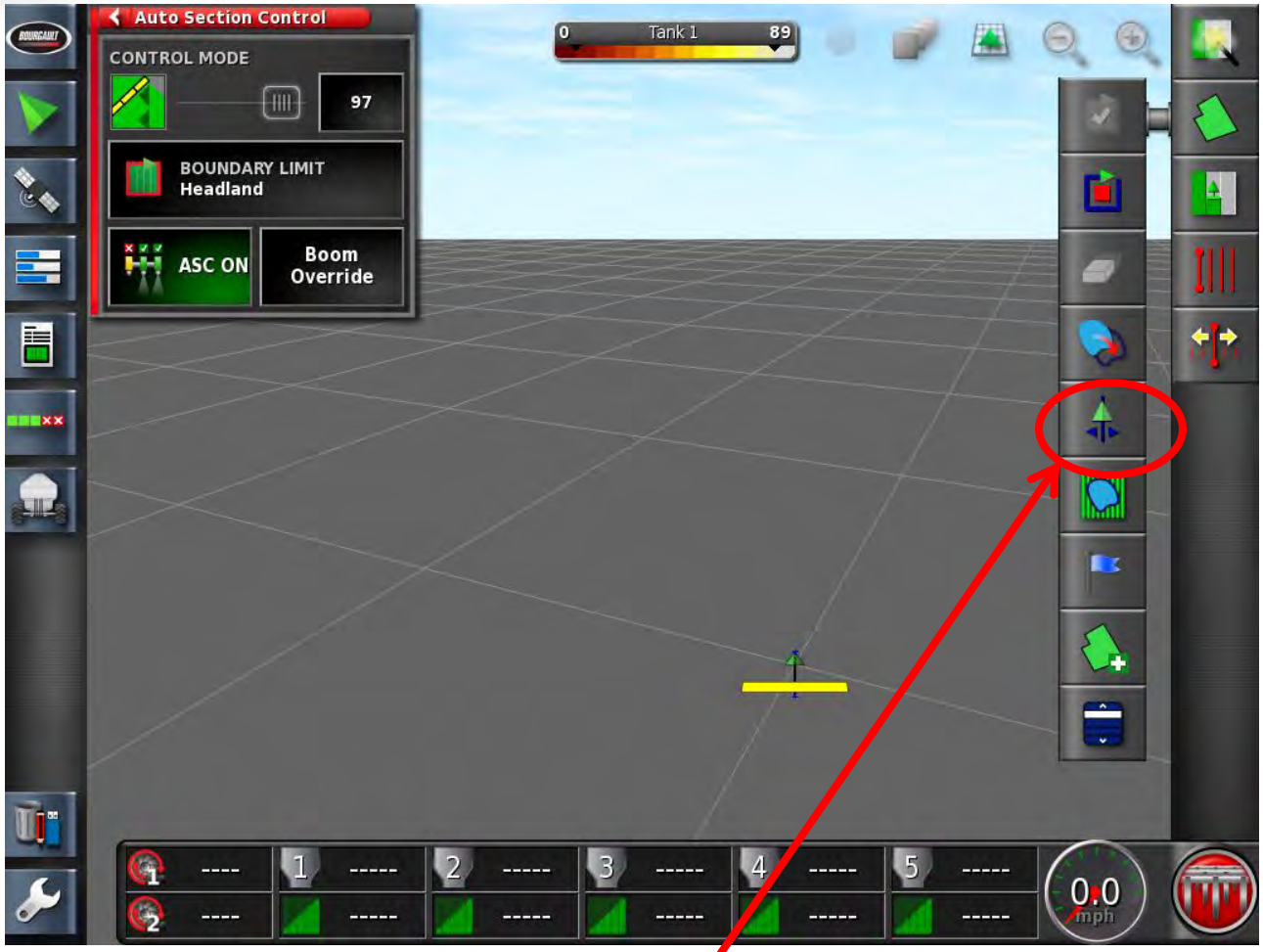

To Select a previously created Field, select the blue **Select Field** tab.


Pick a job from the X30 list or the USB stick.

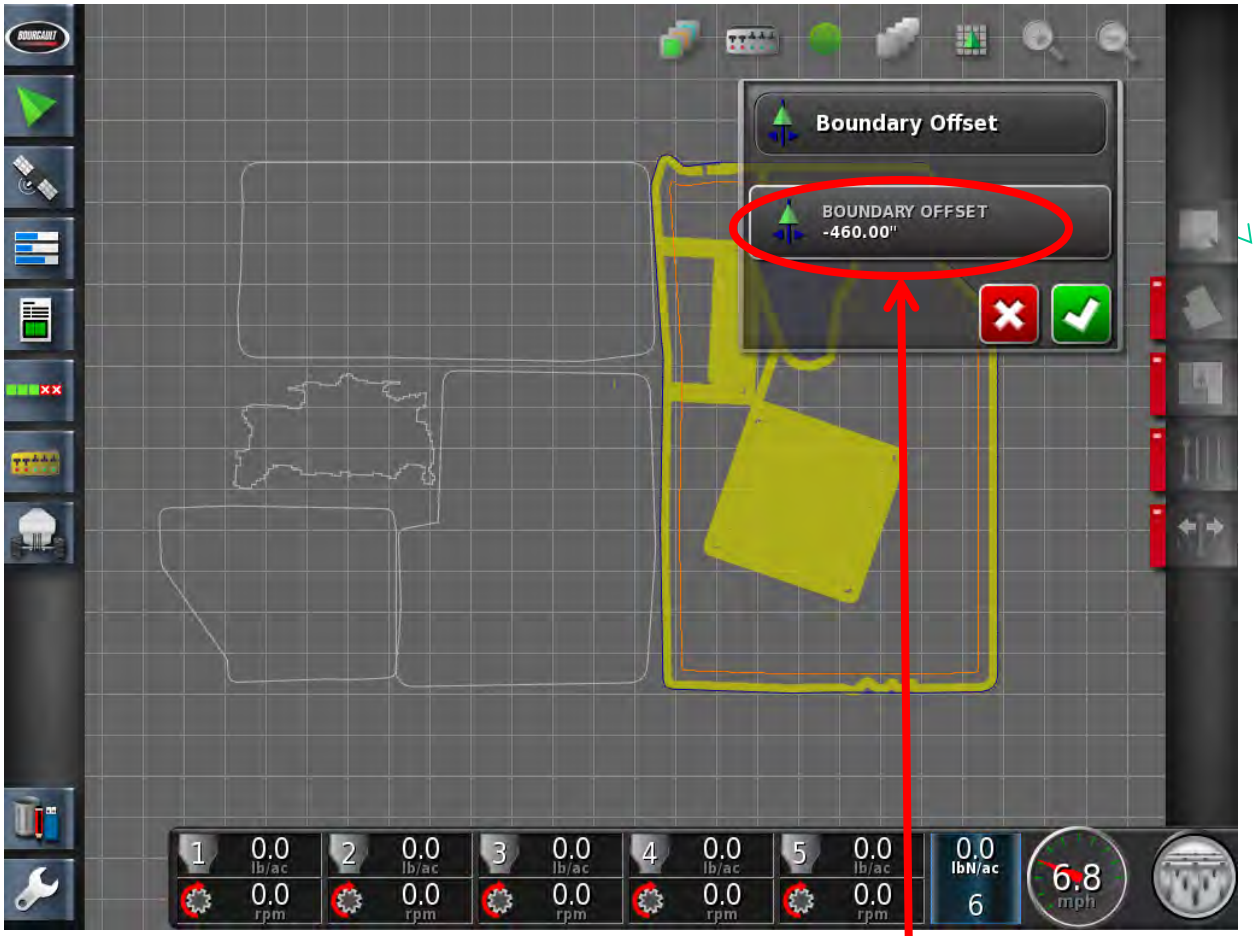
Chapter 5

# Recording a Boundary Map

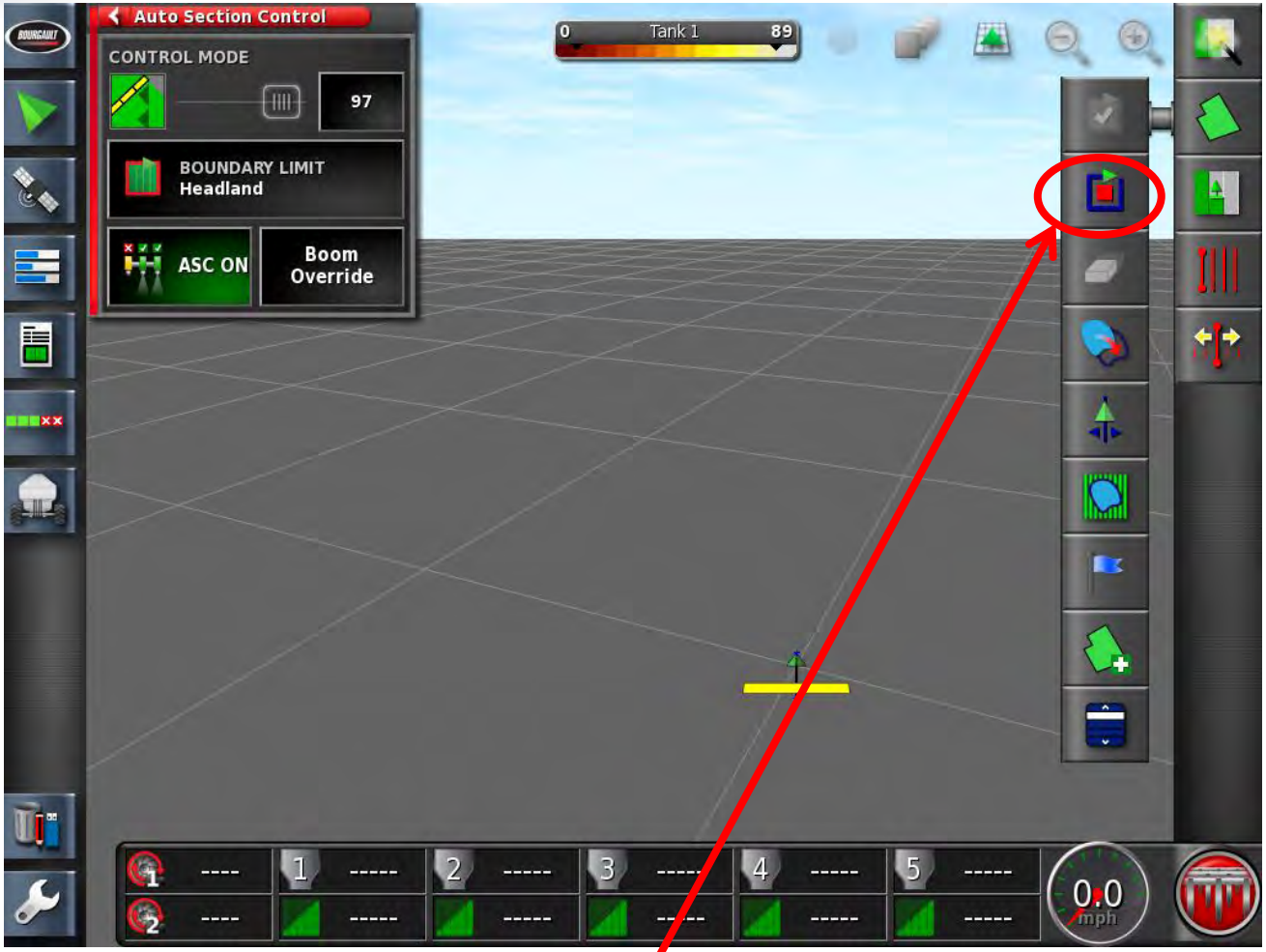
The following steps will help you to **Record a Boundary** which is a critical step for the proper function of the **Bourgault Auto Section Control**.




After a New Job is started, select Boundary Offset Tab

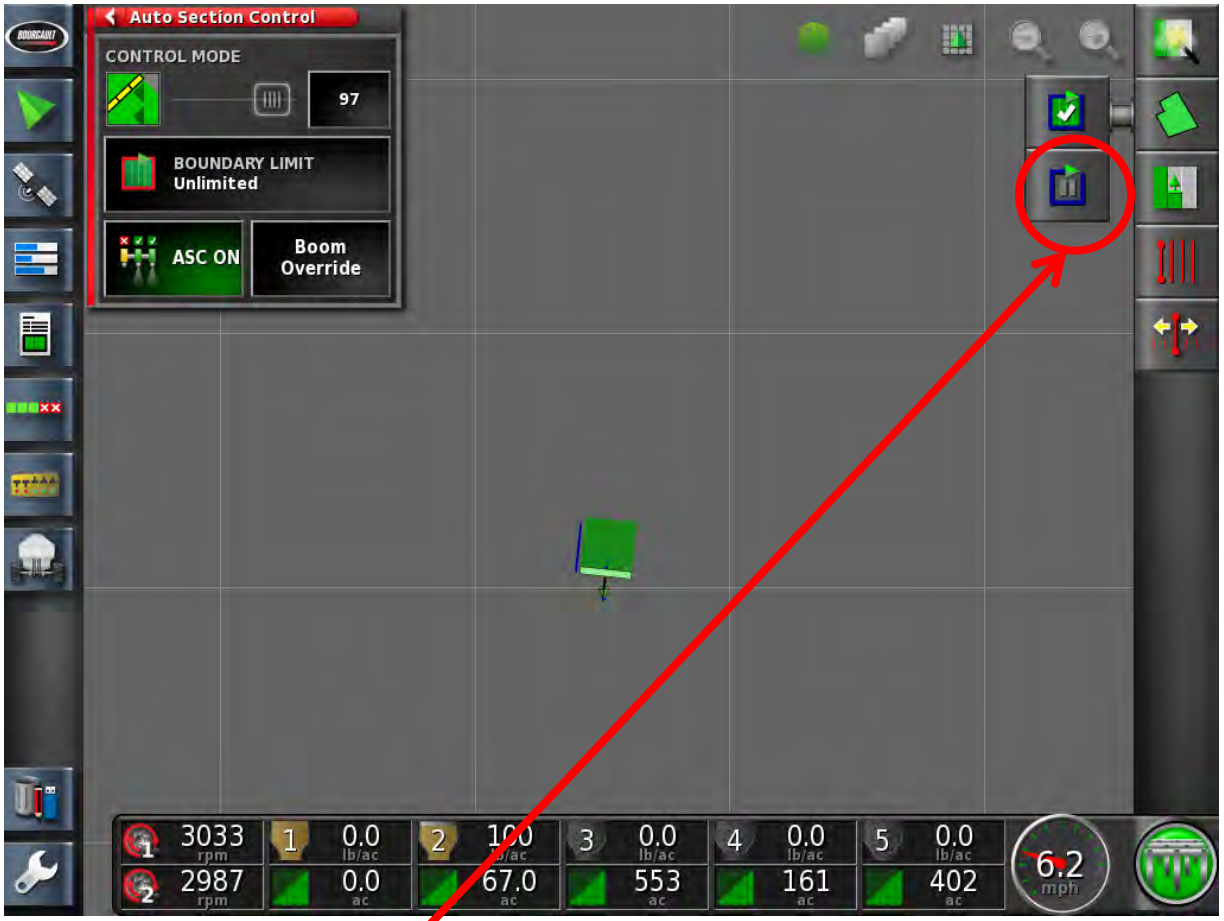



Set the offset to ½ the implement width, negative if travelling with boundary to the left.

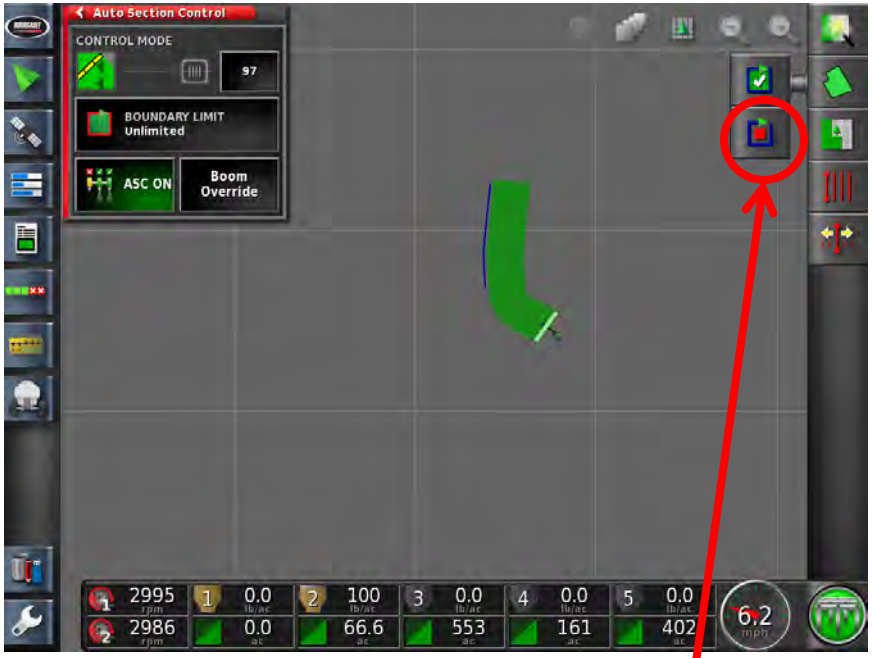



Select the **Record Boundary** tab.


Drive the Boundary of the Field

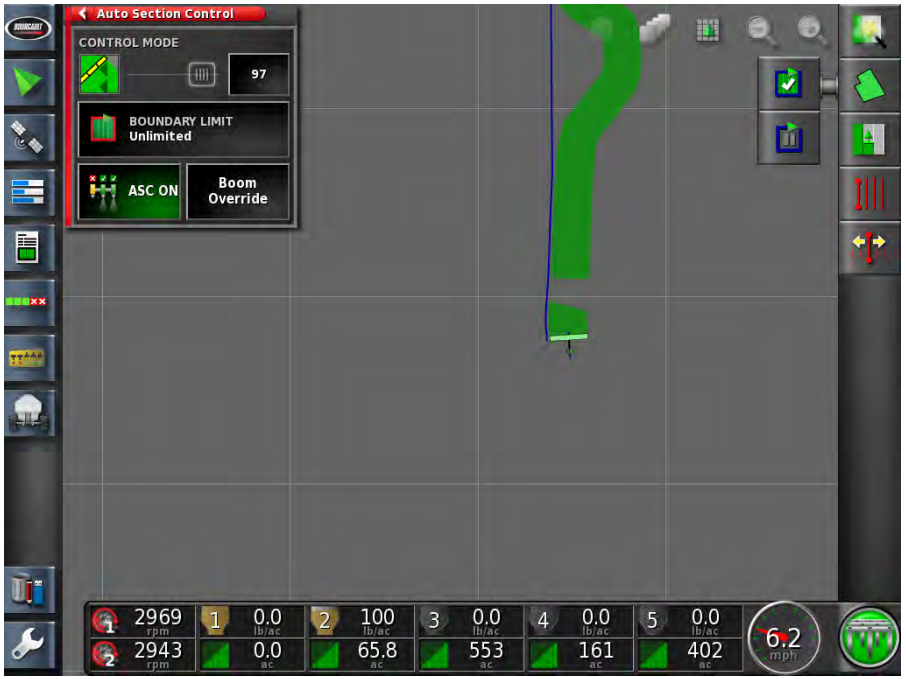



You can use the **Pause Recording Boundary** to pause while going around objects then resume recording once you are going straight again. The **Master Clutch Off** will also pause the recording of the boundary.





Once you are lined up again, press the red record button to connect the boundary and resume recording.


The new software allows you to pause recording when you turn off the master clutch, then restart when you engage the master again (very useful on turn around).


Once you are lined up with your starting position, press the green box with a check to complete the boundary.

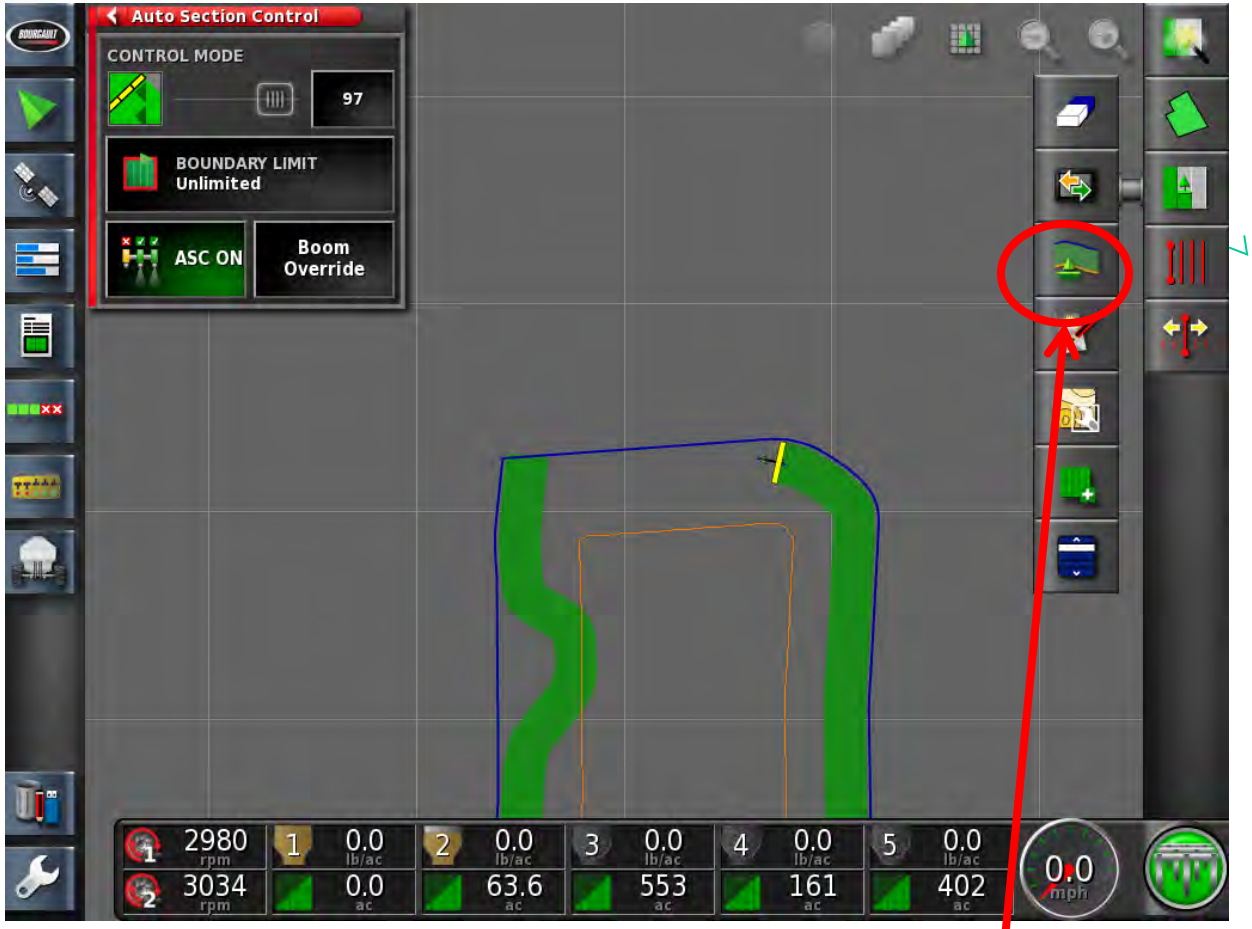
Chapter 6

# Headland Manager

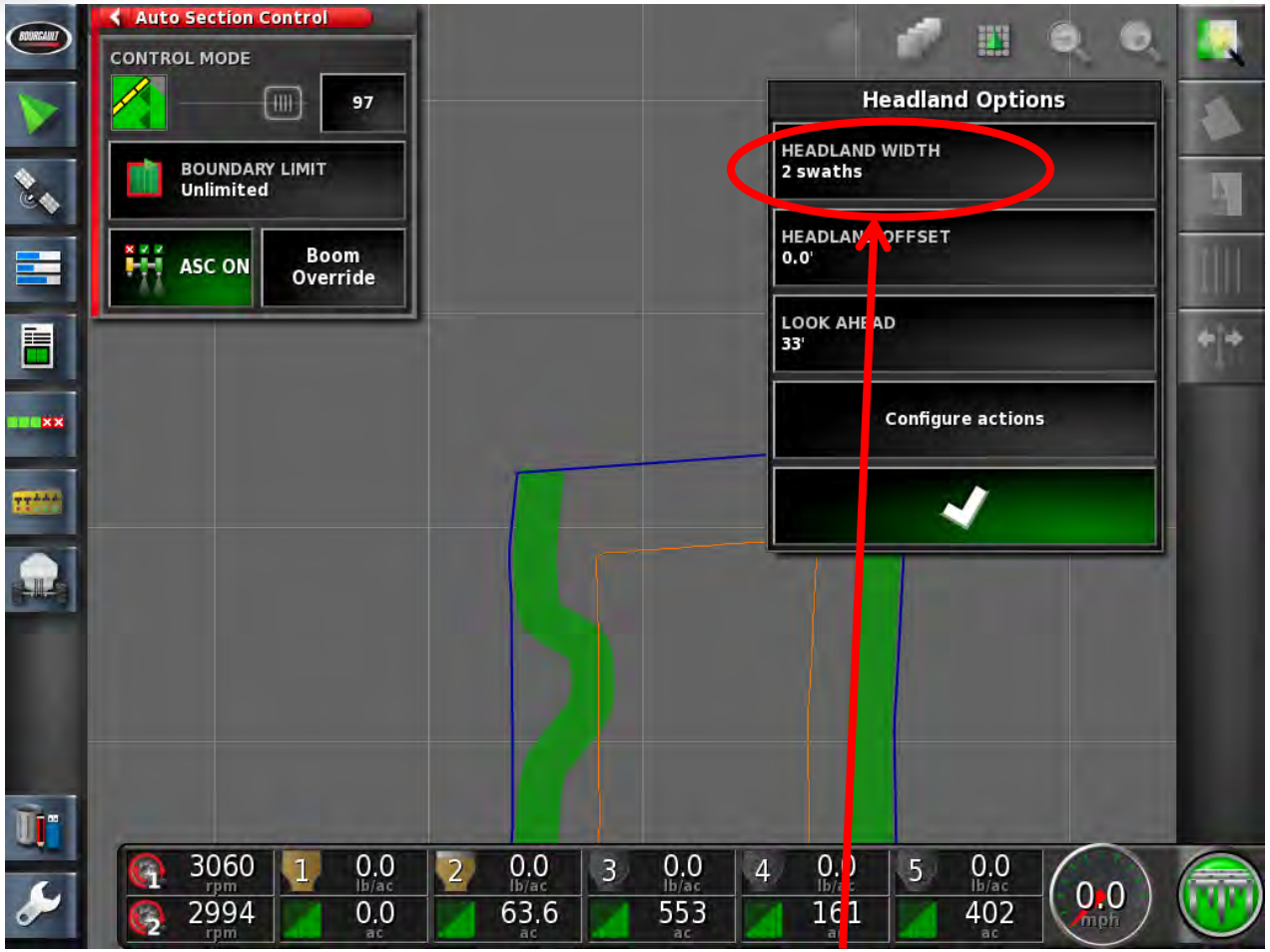
**Headland Manager** is a tool that allows the operator to seed the headlands last with a few easy steps


The drawing above shows the completed boundary in blue. Note that there is a second yellow line which is a headland offset boundary.

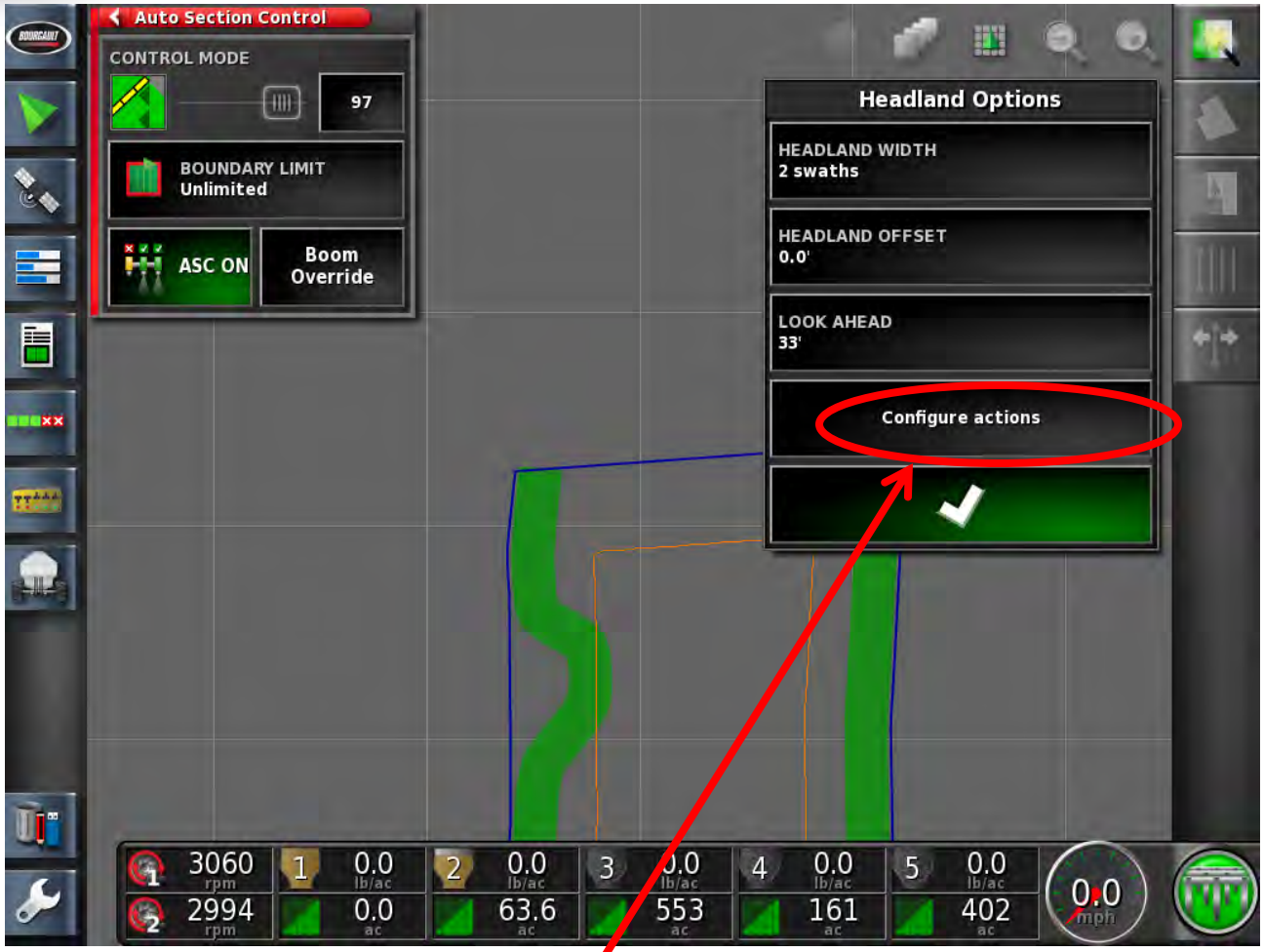

After completion of the **Field Boundary** (shown in blue), you can create a second **Headland Offset** enabling the ability to seed the headlands last.




To set up the secondary boundary, select the **Configure Headlands** icon.

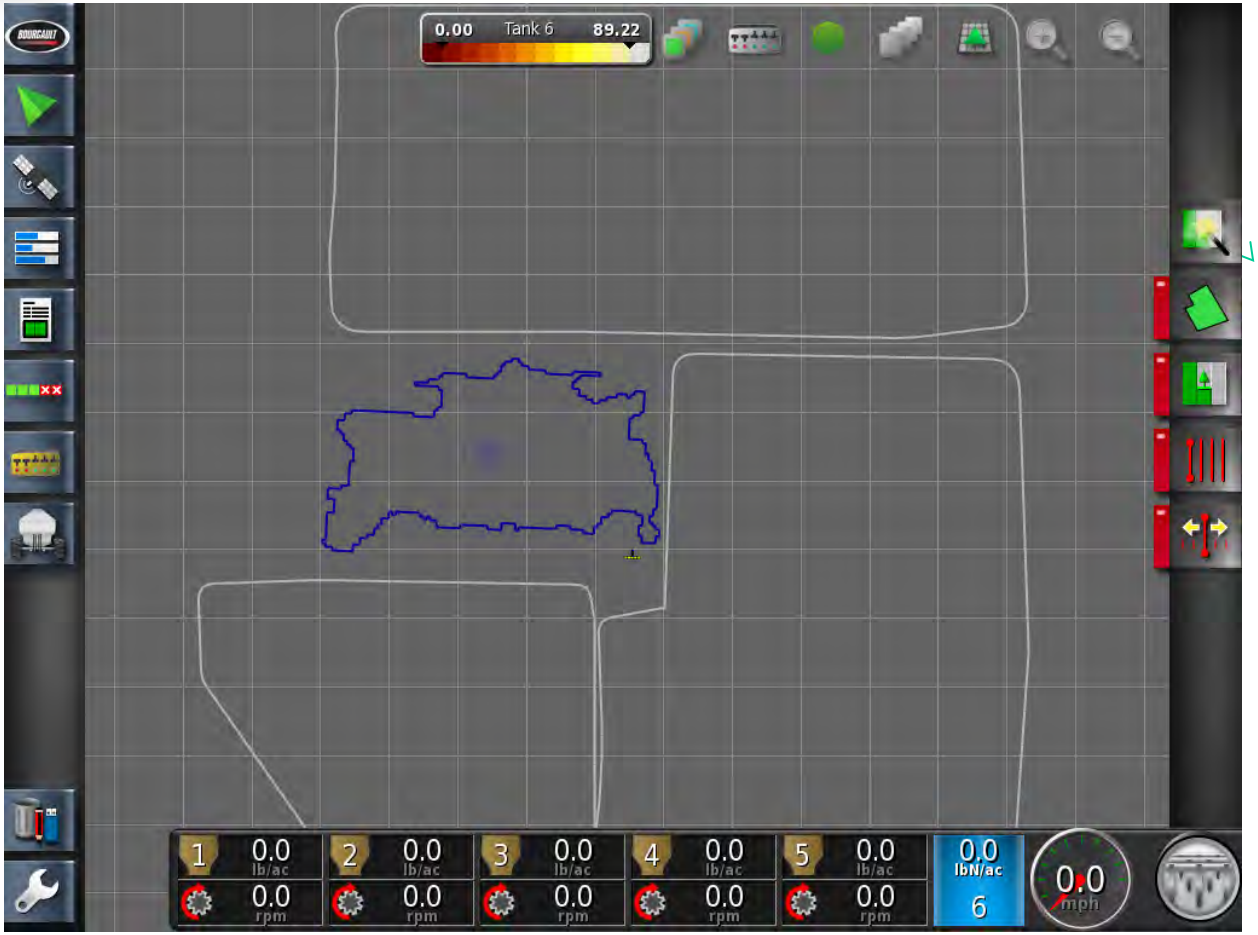



Select how many headland swaths to determine the desired number of passes between the **Field Boundary** (blue line) and the **Headland Boundary** (yellow line).




You may also select **"Configure actions"** to preset a few options.


Actions may be selected as shown above.



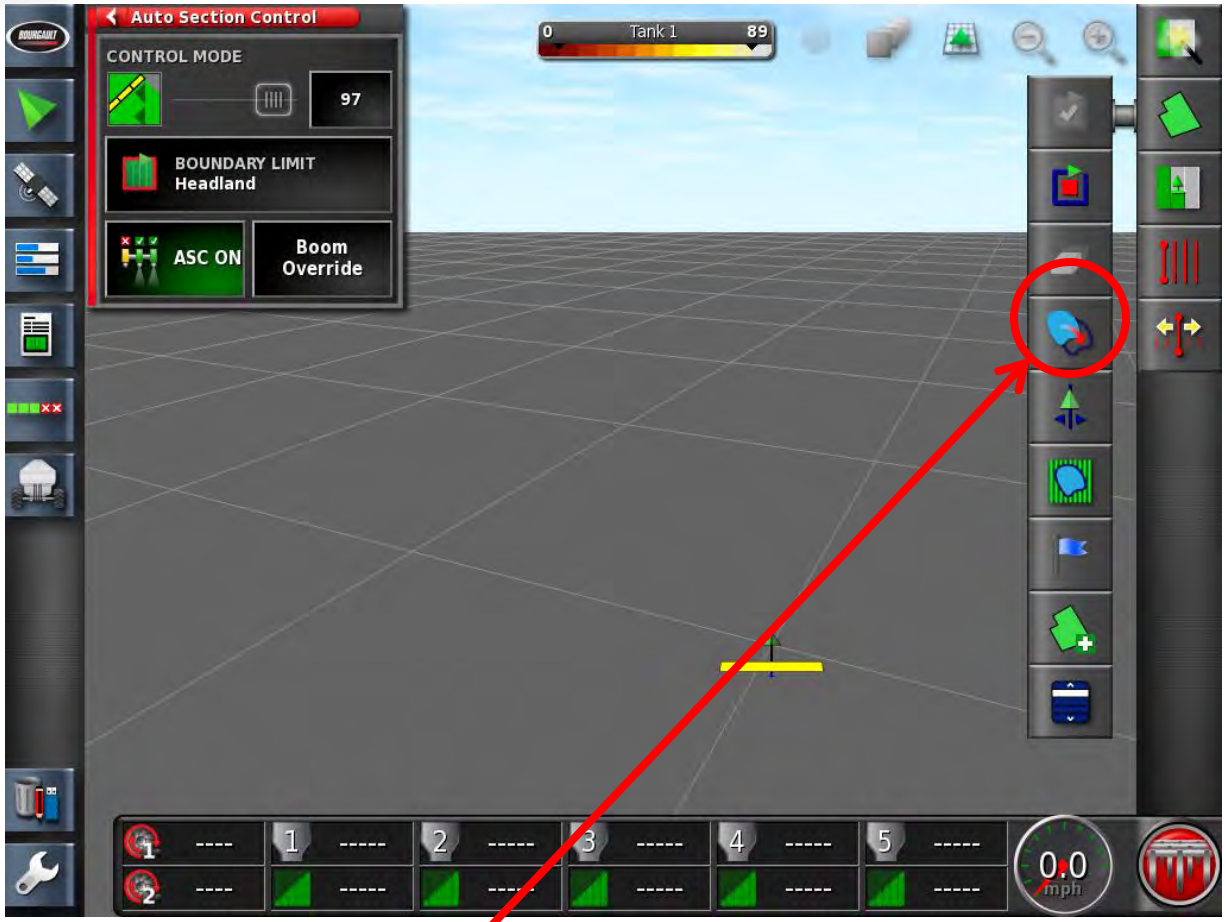

Active Boundaries show up as Blue Boundaries and the other previously recorded inactive Boundaries will be Grey Boundaries.

Chapter 7

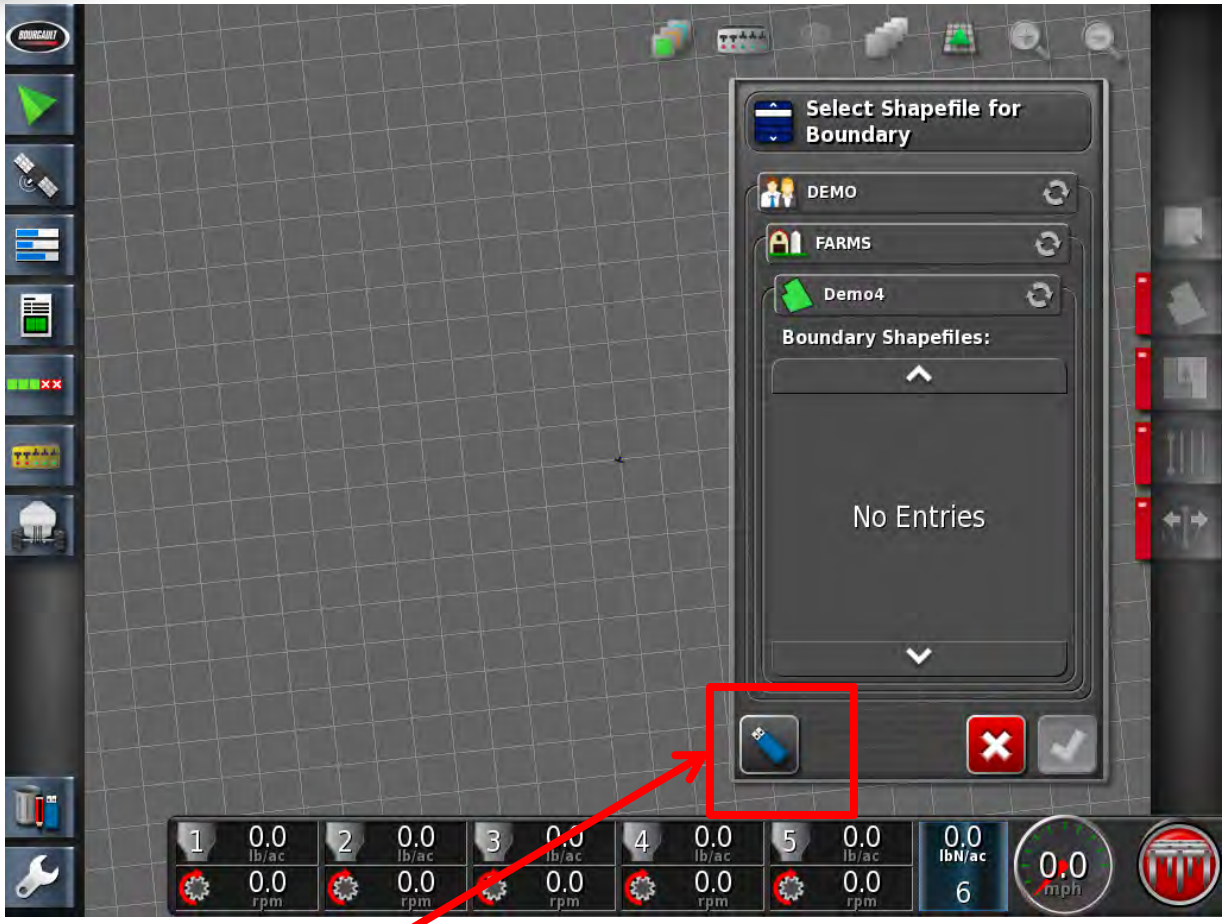
# Loading a Boundary Map From a 3rd Party shape File

The following steps will help you create a boundary for your X30 from a shape file that was created by another source.

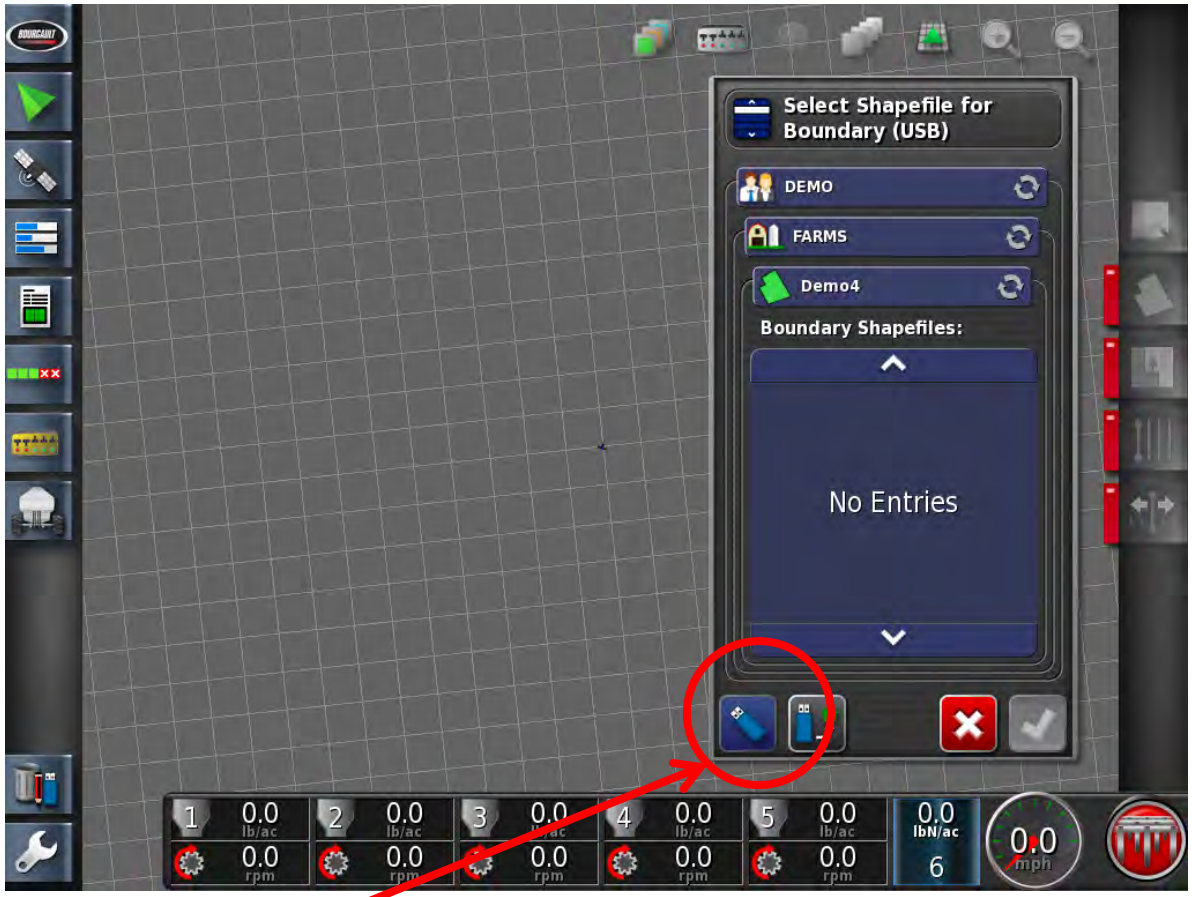
***NOTE***
You can only import shape files to use as boundaries if you have a GPS signal going into the X30.



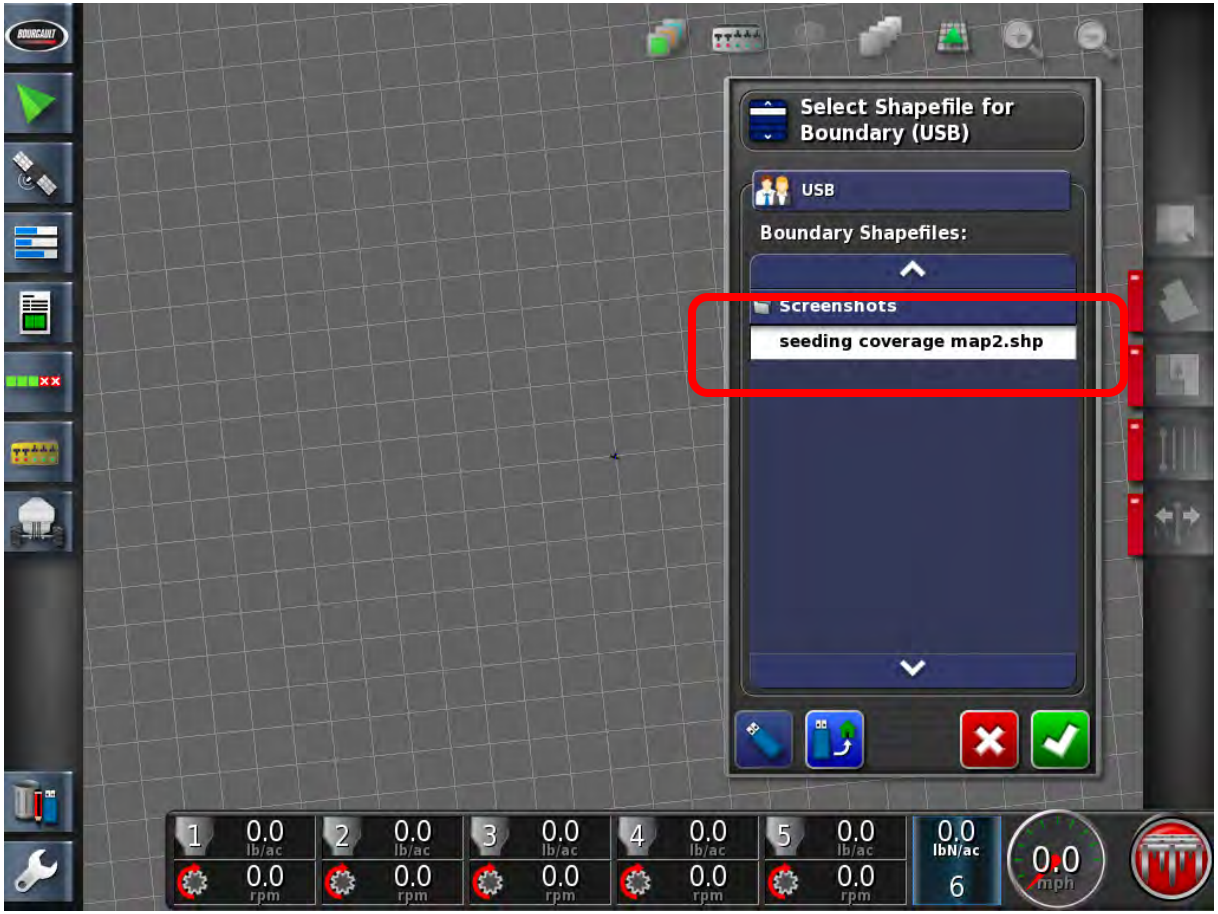

Select this tab to load a Boundary into the X30 after a new Field and Job have been selected.



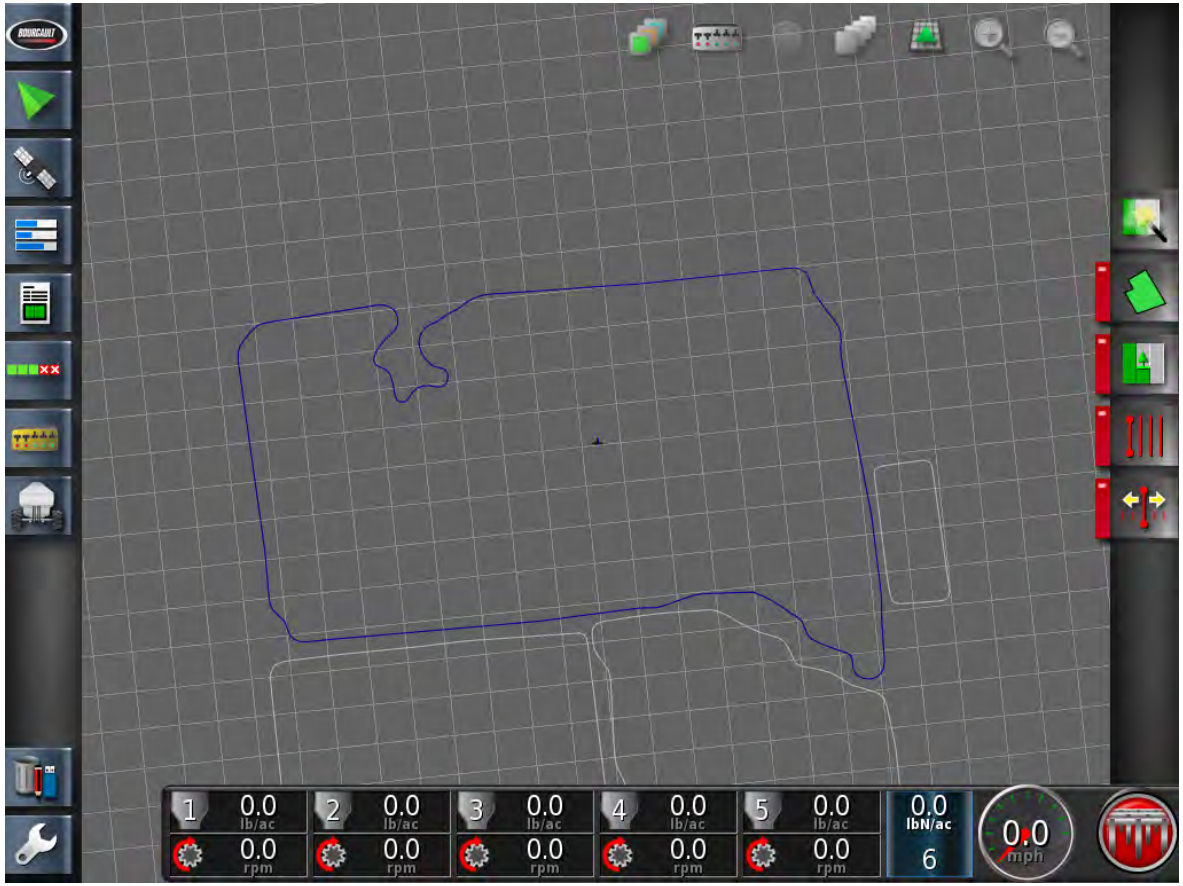

Select the USB tab to load a shape file from a USB memory device.



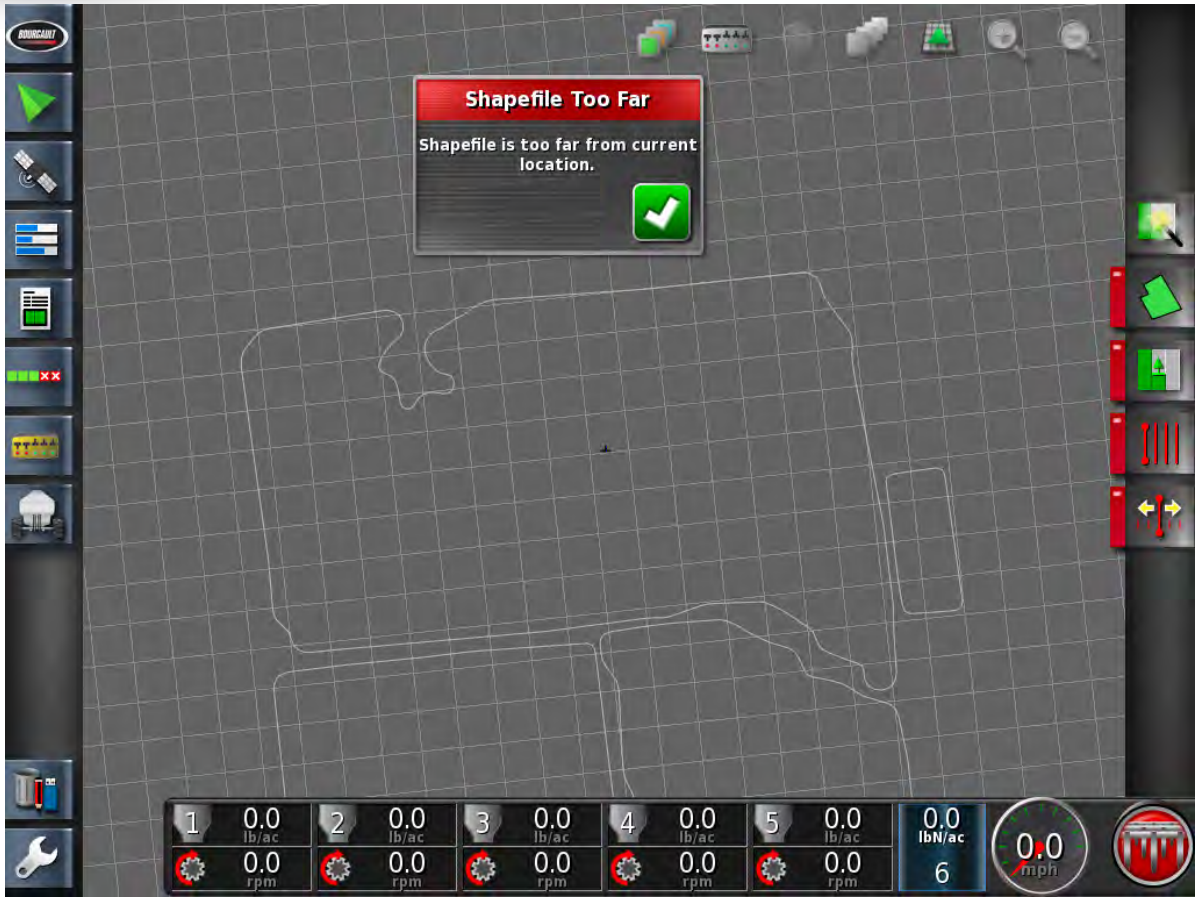

Select this tab to copy the USB shape file to the X30.




Select the **Shape File** you wish to load.




If you are located within a few miles of the map the boundary will appear as a blue outline.




***NOTE***
Boundaries previously loaded show up with a white outline.

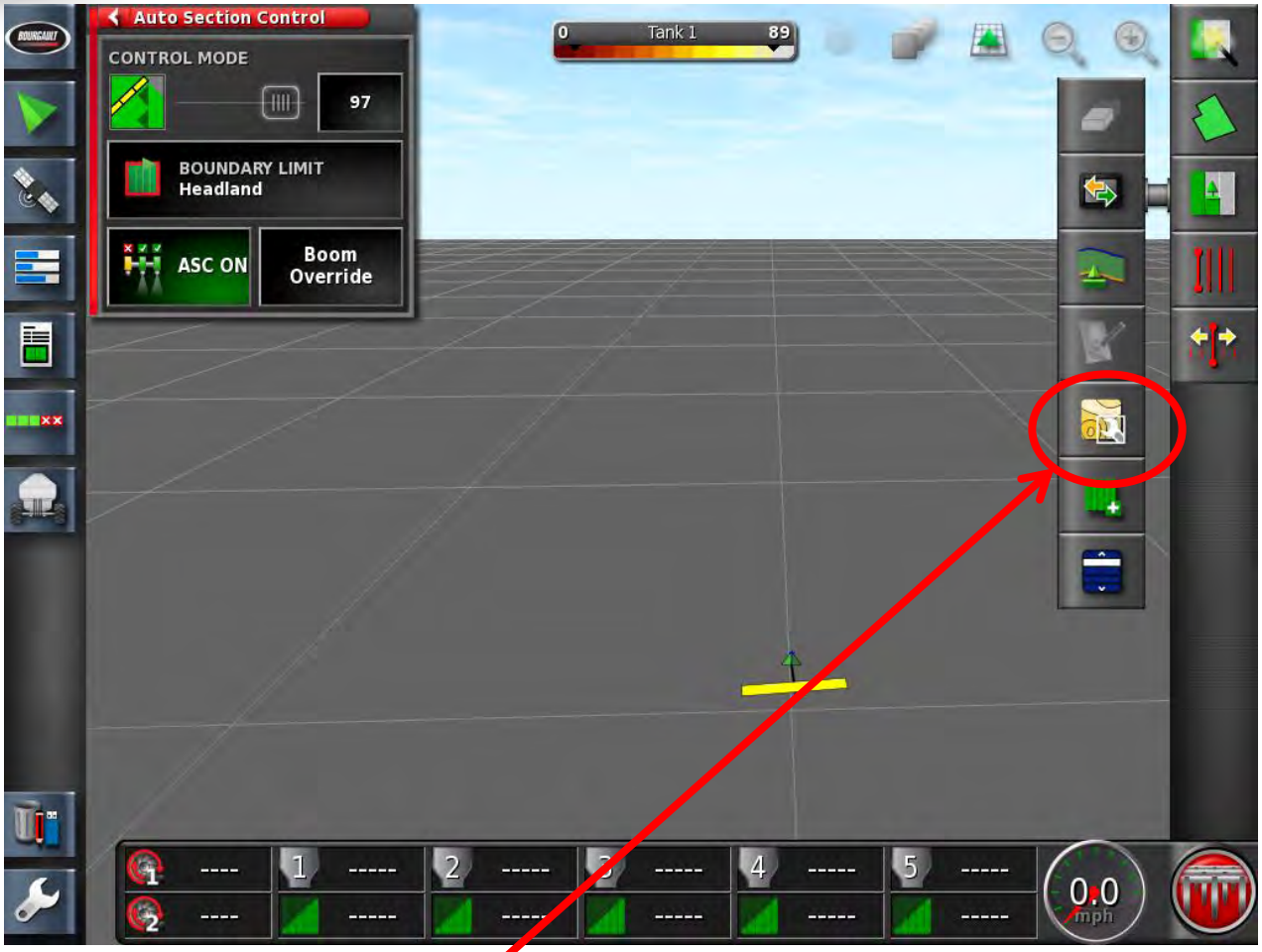
If you are located too far from the boundary you are trying to load you will get this warning, the boundary will be in the X30 but only visible when you are close enough to the Field.

Chapter 8

# Loading a VRC Map

**The following steps will help you load a Variable Rate Control map (VRC) that was previously created in the proper file format (see Building maps for X30 power-point in the Service and Parts section of the Bourgault web site in the Monitor Training folder).**

- VRC – The three parts of a shape file that are needed for a Variable Rate map to work in an X30 (.dbf, .shp and .shx). These files must be properly on an X30.




Select the VRC tab after selecting a Field and Job


Follow the VRC Configuration steps.


Most VRC files are formatted in a Shape format.


Select the shape file you wish to use.


You will have to assign the product in each tank. The Channel column show the product you selected for each tank from the seeder controller page.

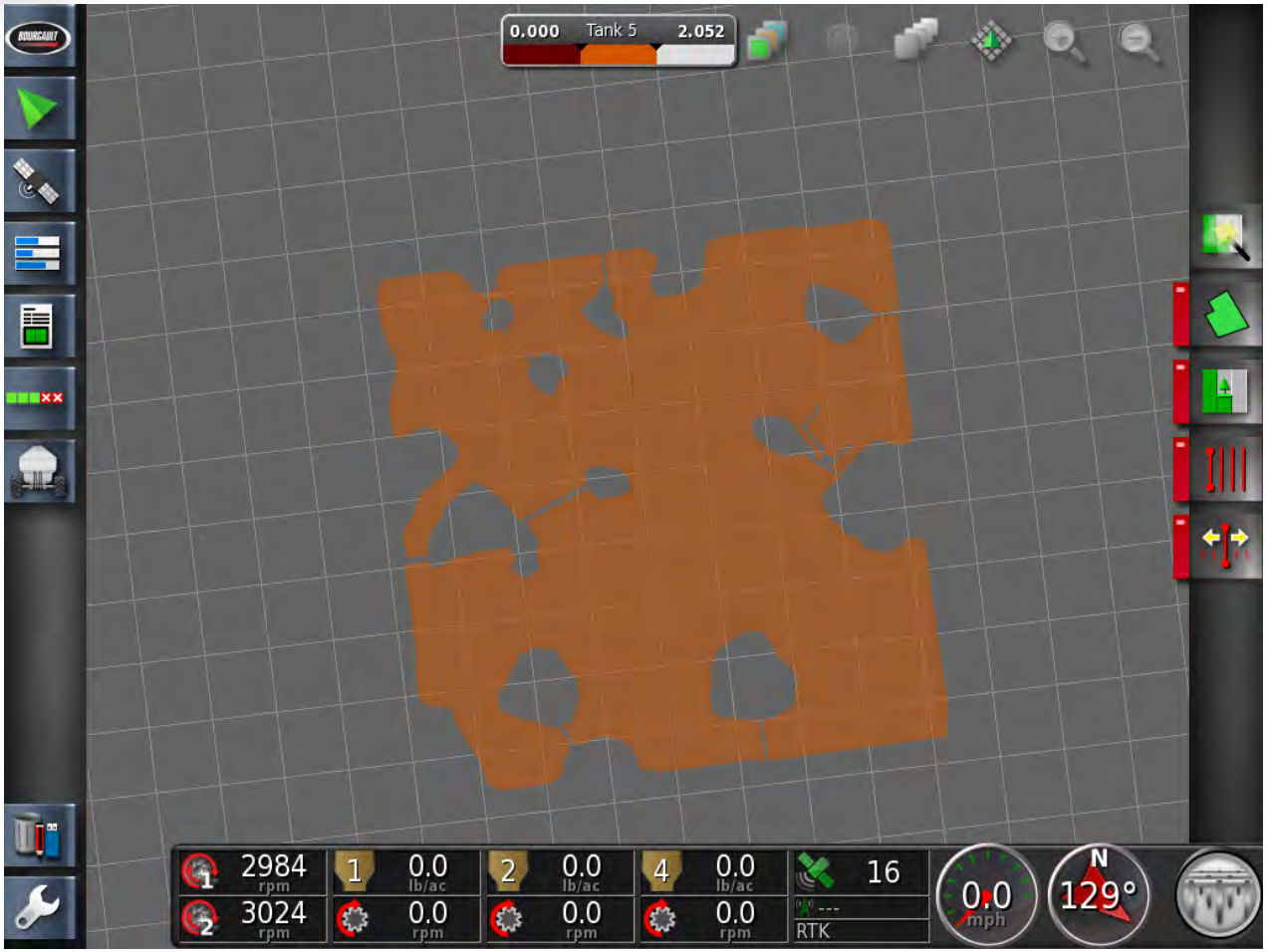

Select a Source for each product, either No VRC or the VRC map.


When VRC has been selected you must touch the Attribute tab and select the product to be used in the selected tank.


Always enter a Default rate for VRC tanks, failure to do so will cause the rate to go to “0” in the event that you lose GPS.


Confirm all of your selections then press the RH Yellow arrow.


The Green check mark completes the VRC map loading process.




The example shown above is a common example of what a VRC Shape looks like.
Refer to the **Bourgault Operators** manual for more detailed information.

Chapter 9

# Job Reports

Whenever a **Job** has been started the X30 starts logging details that can be exported into three folders as follows:

1. **Clients**
   - Contains **Client Name**, **Farm Name**, **Field name** and **Job Name**, as well as the **Boundary** and **Coverage Shape Files.**
2. **Reports**
   - Printable PDF's
3. **Taskdata**
   - XML system files


To export a **Job** to a USB memory stick, press the **Job Menu** button,


Press the Data Exchange button.


With a USB memory stick installed, press the **Export Job Report** to USB button.


When the **Exporting Job** starts it will ask if you wish to reconfigure the layers.


The **Exporting Job Report** may take several seconds.

## Chapter 10

The following pages are of a sample **Job Report PDF**, this may be printed and kept on file.

- **Job Summary**
- **Applied Maps** for each product metered.
- **Full Width** and **Sectional Coverage Maps**.
- **Area Counter Summary**.

# Job Summary

| | |
|---|---|
| **Client** | **Service School 2014** |
| **Farm** | **Rick's demo** |
| **Field** | **Demo 2014** |
| **Job** | **J_7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN SCN) HF_022814_1159** |

## Job Details

| | |
|---|---|
| Implement | 7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN SCN) HF |
| Vehicle | 9030 Articulated |
| Started On | Feb 28, 2014 11:59 am |
| Finished On | Feb 28, 2014 12:43 pm |
| Total Hours | 44 min |
| Productive Hours | 26 min |
| Distance Travelled | 1.5 miles |
| Boundary Area | 21.53 ac |
| Notes | |

# Coverage Map

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| | |
|---|---|
| **Client** | **Service School 2014** |
| **Farm** | **Rick's demo** |
| **Field** | **Demo 2014** |
| **Job** | **J_7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN S...** |

| | |
|---|---|
| Boom | Full Width |
| Area Covered | 10.23 ac |
| ☒ Map Origin | Latitude 51°24'10.08"N<br>Longitude 101°54'44.82"W |

# Coverage Map

BOURGAULT

| | |
|---|---|
| **Client** | **Service School 2014** |
| **Farm** | **Rick's demo** |
| **Field** | **Demo 2014** |
| **Job** | **J_7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN S...** |

| | |
|---|---|
| Boom | GRAN |
| Area Covered | 9.21 ac |
| ☒ Map Origin | Latitude 51°24'10.08"N<br>Longitude 101°54'44.82"W |

# Coverage Map

BOURGAULT

| | |
|---|---|
| **Client** | **Service School 2014** |
| **Farm** | **Rick's demo** |
| **Field** | **Demo 2014** |
| **Job** | **J_7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN S...** |

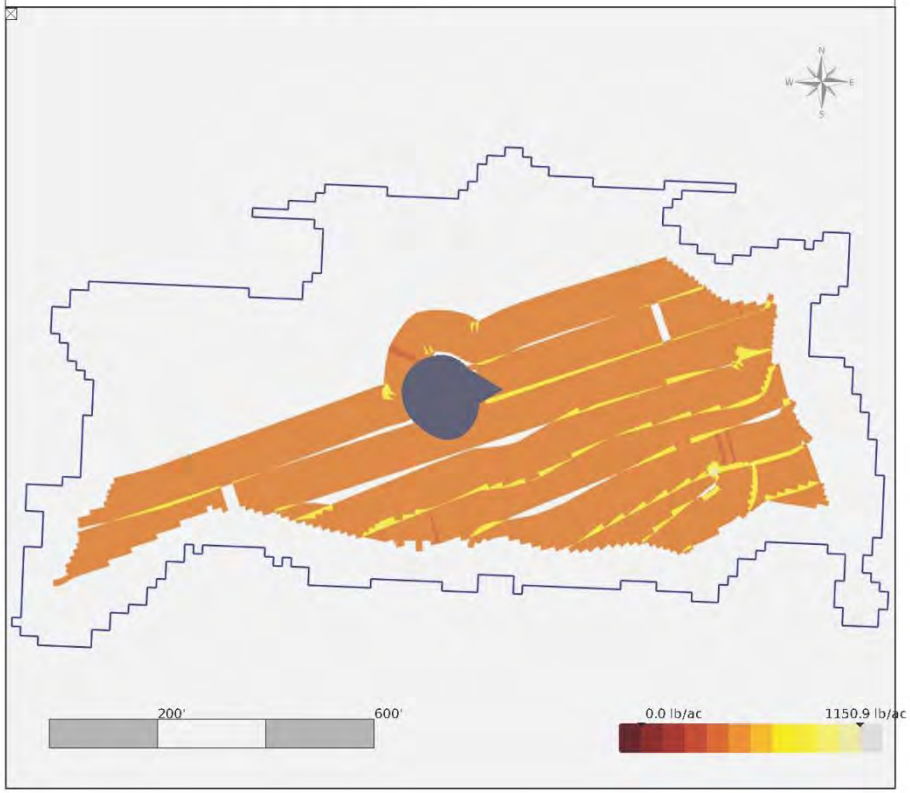
| | |
|---|---|
| Boom | NH3 |
| Area Covered | 9.32 ac |
| ☒ Map Origin | Latitude 51°24'10.08"N<br>Longitude 101°54'44.82"W |

## Applied Rate: WHEAT-HR

BOURGAULT

| | |
|---|---|
| **Client** | **Service School 2014** |
| **Farm** | **Rick's demo** |
| **Field** | **Demo 2014** |
| **Job** | **J_7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN S...** |

| | |
|---|---|
| Tank | Tank 1 |
| Product | WHEAT-HR |
| Minimum Rate | 0.0 lb/ac |
| Maximum Rate | 1150.9 lb/ac |
| ☒ Map Origin | Latitude 51°24'10.08"N<br>Longitude 101°54'44.82"W |

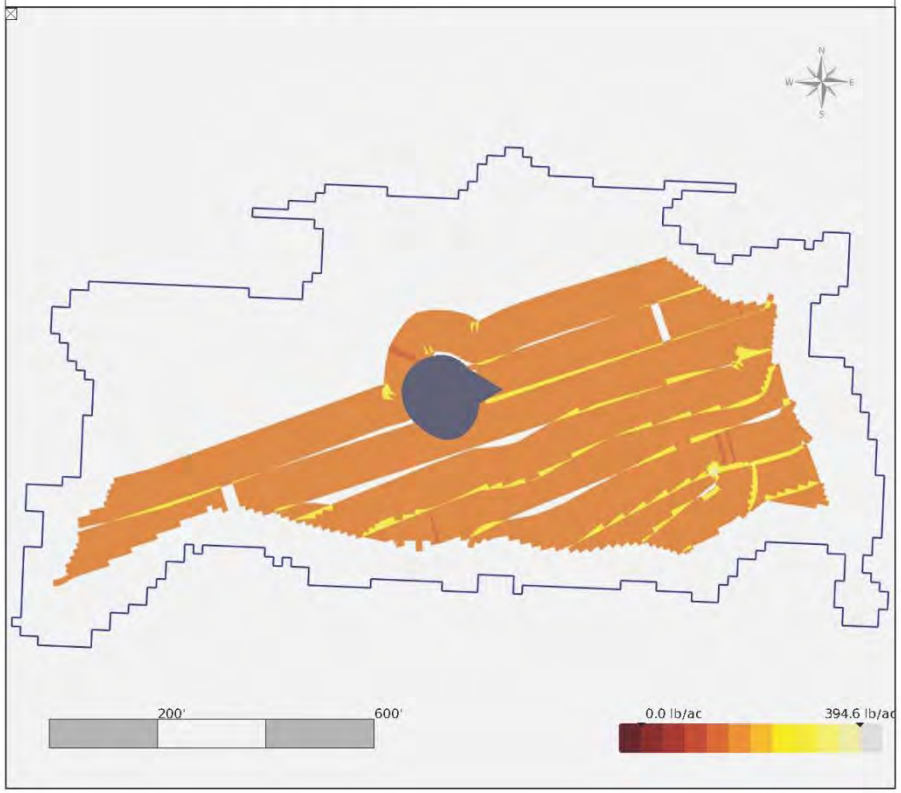


## Applied Rate: WHEAT-HR

BOURGAULT

| | |
|---|---|
| **Client** | **Service School 2014** |
| **Farm** | **Rick's demo** |
| **Field** | **Demo 2014** |
| **Job** | **J_7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN S...** |

| | |
|---|---|
| Tank | Tank 2 |
| Product | WHEAT-HR |
| Minimum Rate | 0.0 lb/ac |
| Maximum Rate | 394.6 lb/ac |
| ☒ Map Origin | Latitude 51°24'10.08"N<br>Longitude 101°54'44.82"W |

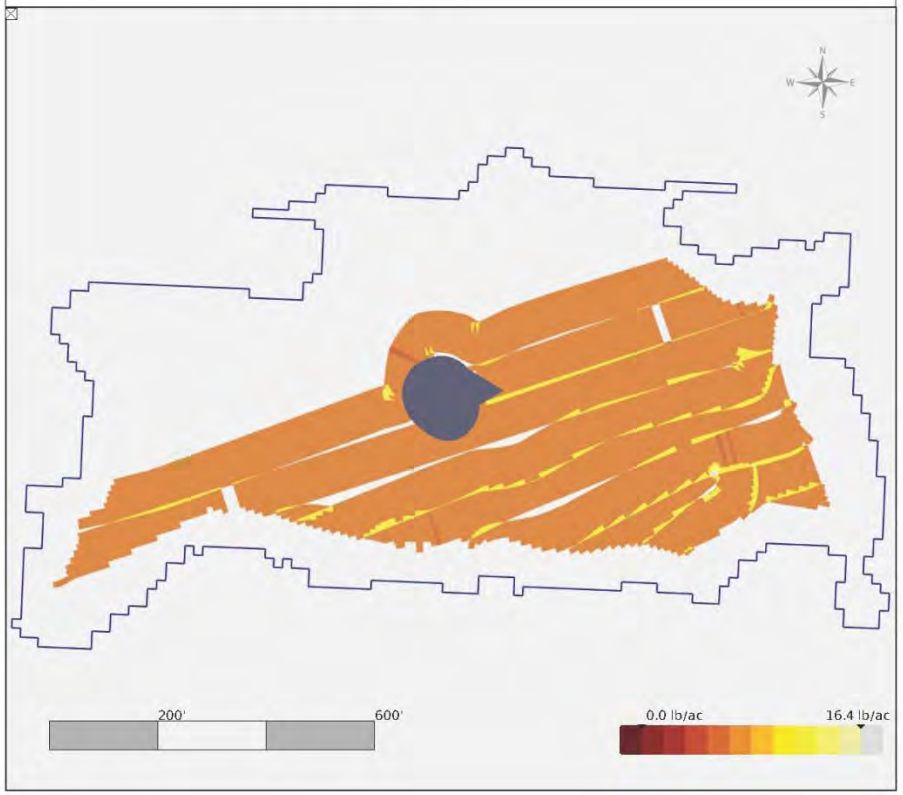


# Applied Rate: CANOLA

BOURGAULT

| | |
|---|---|
| **Client** | **Service School 2014** |
| **Farm** | **Rick's demo** |
| **Field** | **Demo 2014** |
| **Job** | **J_7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN S...** |

| | |
|---|---|
| Tank | Tank 3 |
| Product | CANOLA |
| Minimum Rate | 0.0 lb/ac |
| Maximum Rate | 16.4 lb/ac |
| ☒ Map Origin | Latitude 51°24'10.08"N<br>Longitude 101°54'44.82"W |

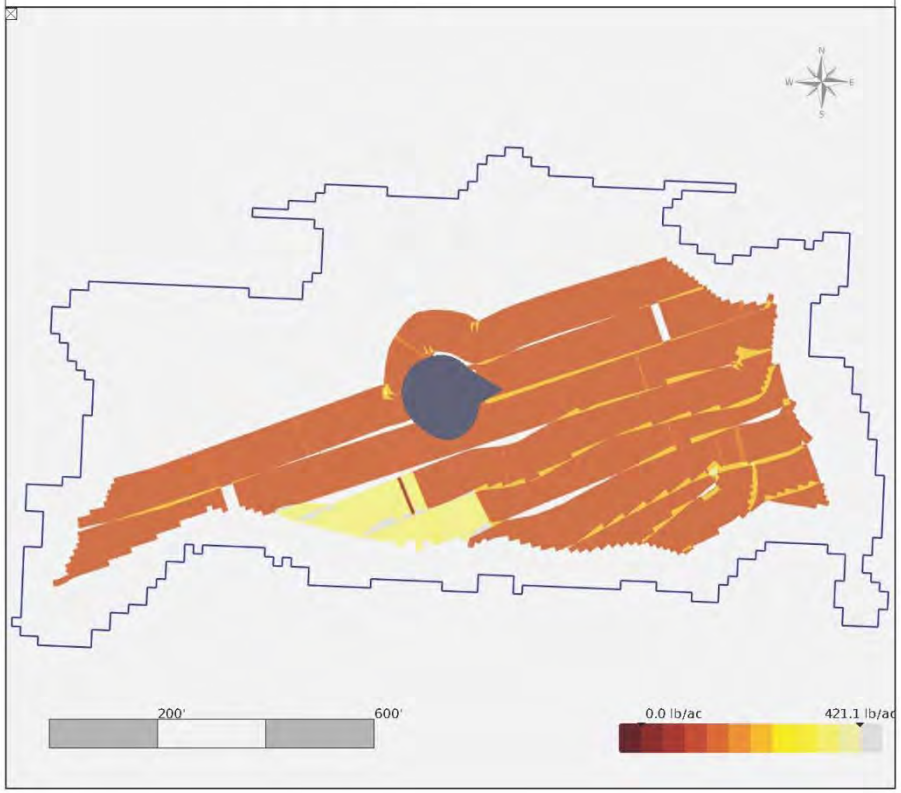


## Applied Rate: WHEAT-HR

BOURGAULT

| | |
|---|---|
| **Client** | **Service School 2014** |
| **Farm** | **Rick's demo** |
| **Field** | **Demo 2014** |
| **Job** | **J_7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN S...** |

| | |
|---|---|
| Tank | Tank 4 |
| Product | WHEAT-HR |
| Minimum Rate | 0.0 lb/ac |
| Maximum Rate | 421.1 lb/ac |
| ☒ Map Origin | Latitude 51°24'10.08"N<br>Longitude 101°54'44.82"W |

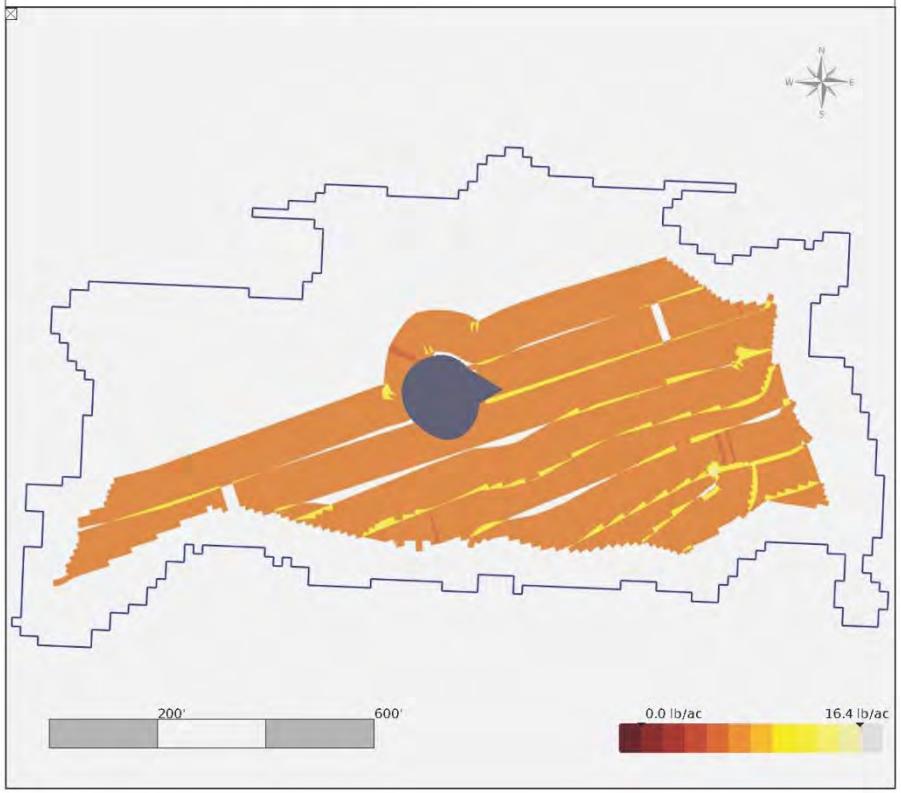


# Applied Rate: CANOLA

BOURGAULT

| | |
|---|---|
| **Client** | **Service School 2014** |
| **Farm** | **Rick's demo** |
| **Field** | **Demo 2014** |
| **Job** | **J_7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN S...** |

| | |
|---|---|
| Tank | Tank 5 |
| Product | CANOLA |
| Minimum Rate | 0.0 lb/ac |
| Maximum Rate | 16.4 lb/ac |
| ☒ Map Origin | Latitude 51°24'10.08"N<br>Longitude 101°54'44.82"W |

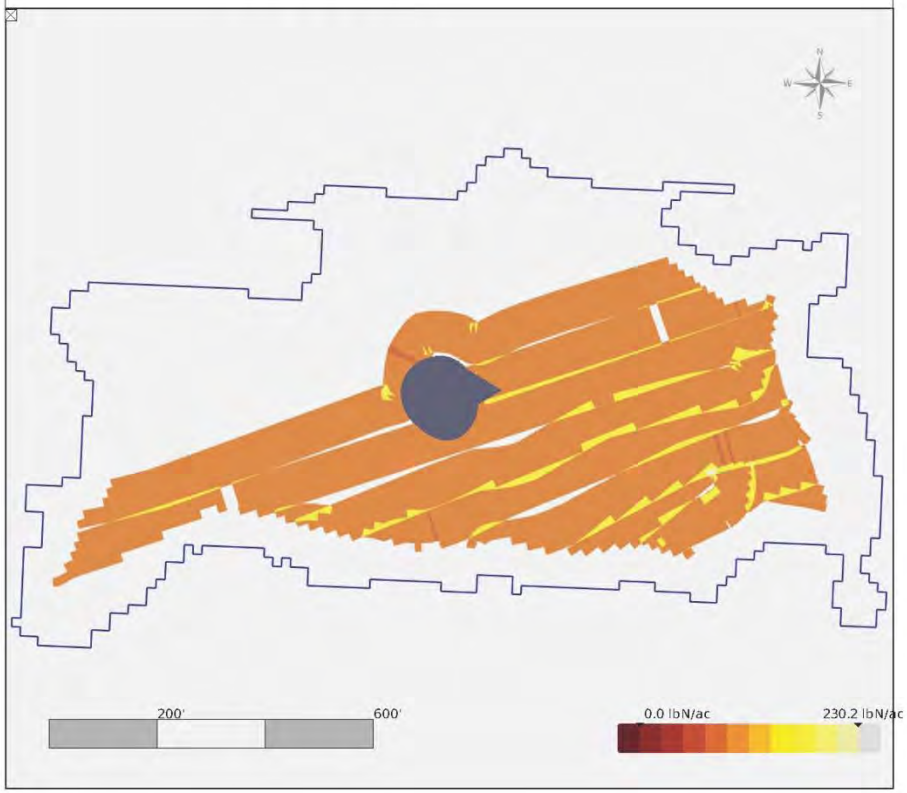


## Applied Rate: NH3

BOURGAULT

| | |
|---|---|
| **Client** | **Service School 2014** |
| **Farm** | **Rick's demo** |
| **Field** | **Demo 2014** |
| **Job** | **J_7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN S...** |

| | |
|---|---|
| Tank | Tank 6 |
| Product | NH3 |
| Minimum Rate | 0.0 lbN/ac |
| Maximum Rate | 230.2 lbN/ac |
| ☒ Map Origin | Latitude 51°24'10.08"N<br>Longitude 101°54'44.82"W |



# Area Counter Summary

| | |
|---|---|
| **Client** | **Service School 2014** |
| **Farm** | **Rick's demo** |
| **Field** | **Demo 2014** |
| **Job** | **J_7950 5TANK-MTRG(SCN) NH3(SCN)_3320-76 10SPCG(GRAN SCN) HF_022814_1159** |

Tank 1 (WHEAT-HR)

| Area Counter | Treated Area | Full Area | Product Used | Operating Time | Average Rate | Productivity |
|---|---|---|---|---|---|---|
| 1 | 14.72 ac | 14.72 ac | 5148.57 lb | 00:43:17 | 349.79 lb/ac | 20.40 ac/hr |
| Total | 14.72 ac | 14.72 ac | 5148.57 lb | 00:43:17 | 349.79 lb/ac | 20.40 ac/hr |

Tank 2 (WHEAT-HR)

| Area Counter | Treated Area | Full Area | Product Used | Operating Time | Average Rate | Productivity |
|---|---|---|---|---|---|---|
| 1 | 14.72 ac | 14.72 ac | 1765.67 lb | 00:43:17 | 119.96 lb/ac | 20.40 ac/hr |
| Total | 14.72 ac | 14.72 ac | 1765.67 lb | 00:43:17 | 119.96 lb/ac | 20.40 ac/hr |

Tank 3 (CANOLA)

| Area Counter | Treated Area | Full Area | Product Used | Operating Time | Average Rate | Productivity |
|---|---|---|---|---|---|---|
| 1 | 14.72 ac | 14.72 ac | 73.96 lb | 00:43:17 | 5.02 lb/ac | 20.40 ac/hr |
| Total | 14.72 ac | 14.72 ac | 73.96 lb | 00:43:17 | 5.02 lb/ac | 20.40 ac/hr |

Tank 4 (WHEAT-HR)

| Area Counter | Treated Area | Full Area | Product Used | Operating Time | Average Rate | Productivity |
|---|---|---|---|---|---|---|
| 1 | 14.71 ac | 14.71 ac | 2062.08 lb | 00:43:15 | 140.20 lb/ac | 20.40 ac/hr |
| Total | 14.71 ac | 14.71 ac | 2062.08 lb | 00:43:15 | 140.20 lb/ac | 20.40 ac/hr |

Tank 5 (CANOLA)

| Area Counter | Treated Area | Full Area | Product Used | Operating Time | Average Rate | Productivity |
|---|---|---|---|---|---|---|
| 1 | 14.72 ac | 14.72 ac | 73.96 lb | 00:43:17 | 5.03 lb/ac | 20.40 ac/hr |
| Total | 14.72 ac | 14.72 ac | 73.96 lb | 00:43:17 | 5.03 lb/ac | 20.40 ac/hr |

Tank 6 (NH3)

| Area Counter | Treated Area | Full Area | Product Used | Operating Time | Average Rate | Productivity |
|---|---|---|---|---|---|---|
| 1 | 14.72 ac | 14.72 ac | 1026.07 lbN | 00:43:17 | 69.7 lbN/ac | 20.40 ac/hr |
| Total | 14.72 ac | 14.72 ac | 1026.07 lbN | 00:43:17 | 69.7 lbN/ac | 20.40 ac/hr |