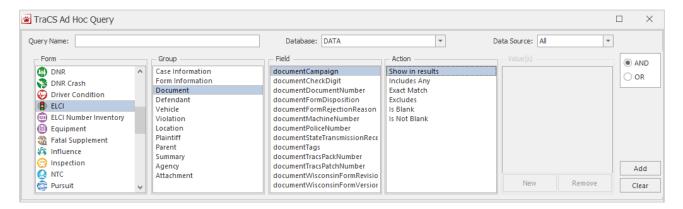
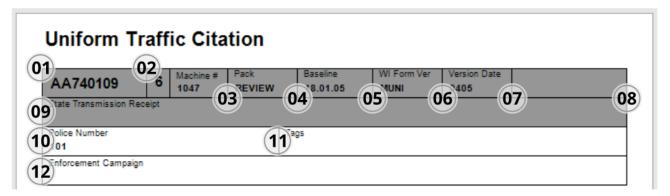
#### Ad Hoc Query Builder - Overview

The Ad Hoc Query Builder organizes fields into groups based on the sections found on TraCS entry form. These groups are outlined below:





- 01. Document.documentDocumentNumber
- 02. Document.documentCheckDigit
- 03. Document.documentMachineNumber
- 04. Document.documentTraCSPackNumber
- 05. Document.documentTraCSPatchNumber
- 06. Document.documentWisconsinFormNumber
- 07. Document.documentWisconsinFormRevisionDate
- 08. Document.documentFormDisposition
- 09. Document.documentStateTransmissionReceipt
- 10. Document.documentPoliceNumber
- 11. Document.documentTags
- 12. Document.documentCampaign

Each section of the entry form (e.g., 'Defendant,' 'Violation,' 'Vehicle,' etc. is organized in the Ad Hoc Query Builder this way (see p.2 of this document for a breakdown of an ELCI form).

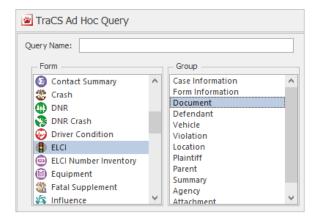
Each TraCS entry form displayed similarly in the Ad Hoc Query Builder and criteria form each of these forms can be selected to build a query/report.

Groups are based on the groups found on each TraCS entry form.

Grouping names coincide with form group names found on entry forms.

Field names found in the Ad Hoc Query Builder match form field names preceded by form section (e.g. 'Document' or 'Vehicle) with a few differences, such as 'documentCampaign' versus 'Enforcement Campaign.'

Ad Hoc Query Builder group names are shown to the right, along with their corresponding TraCS entry form section.



Ad Hoc Query Builder groups are shown above.

The first two groups, *Case Information* and *Form Information*, are not found on TraCS entry forms.

These groups contain case- and form-level information that can be queried to find general information about several case/forms (e.g. case tags, user name, etc.)



### Practice Query 1: 'Issued Traffic Citations by Statute Category'

1. Log into TraCS Training with the following credentials\*:

Username: 222 | Password: tracs

\*Note: You can also use this guide with a regular, non-training (production) TraCS Office version, but we will be using data included in the May 2020 TraCS Training Version in this guide. If you have access to this product you will receive the same results as in this guide, but this guide can be followed with any dataset you have in your own system.

If you wish to use a regular TraCS Office version, simply log in as user with either the **Supervisor** and/or the **System Administrator** access levels. If you do this, steps 3 and 4 below may be skipped.

2. Click the Data Transfer tab and click the End Shift button (shown below).

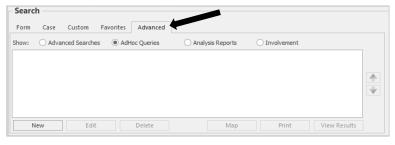


- 3. Click OK.
- 4. In the lower left-hand corner, there should be 55 forms returned. If you see less than this, you are logged into TraCS as user 111. Please log out and back in as user 222.
- 5. The table below outlines criteria for Practice Query 1: 'Issued Traffic Citations by Statute Category.'

FORM	GROUP	FIELD	ACTION	VALUE
ELCI	Form Information	Status Exact Match		Transmitted
ELCI	Document	documentFormDisposition	Exact Match	ISSUED
ELCI	Violation	violationStatuteNumber	Show in results	
ELCI	Violation	violationStatuteDescription	Show in results	
ELCI	Violation	violationStatuteCategory	Includes Any	[User Entered Value]
ELCI	Violation	violationDateOccurred	Range	[User Entered Value]
ELCI	Document	documentDocumentNumber	Show in results	

Table 1: Practice Query 1 Search Criteria

6. Click the **Advanced** tab in the **Search** area.

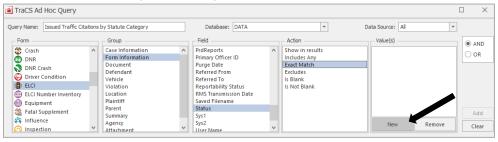


7. Click Ad Hoc Queries.

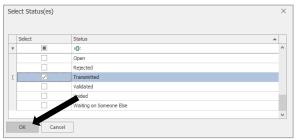
- 8. Click the New button.
- 9. Use the table above (*Table 1: Practice Query 1 Search Criteria*) to fill out the query. Step-by-step instructions for filling out Practice Query 1 can be found on the following pages.
- 10. Enter the Query Name: 'Issued Traffic Citations by Statute Category,' Database: 'Data,' and Data Source: 'All,' as shown below.



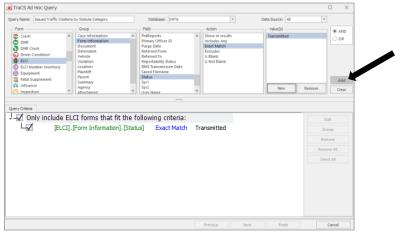
11. Enter criterion 1 (refer to the page 3 of this document — *Table 1: Practice Query 1 Search Criteria*). Select **ELCI** in the **Form** section. Select **Form Information** in the **Group** section. Select **Status** in the **Field** section. Select **Exact Match** in the **Action** section and click the **New** button (shown below):



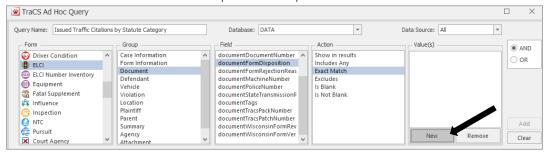
12. Here we will select the status(es) we are interested in. We are only interested in forms that have been transmitted, check the box next to **Transmitted** and click OK.



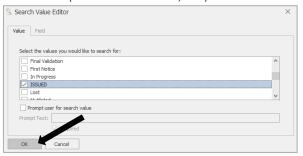
13. **Transmitted** will appear in the **Value(s)** section. Click the **Add** button to add this criterion to the query. It will now appear in the **Query Criteria** section down below.

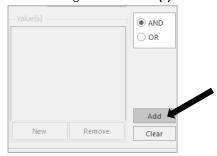


14. Enter criterion 2 (refer to the page 3 of this document – *Table 1: Practice Query 1 Search Criteria*). Select **ELCI** in the **Form** section. Select **Document** in the **Group** section. Select **documentFormDisposition** in the **Field** section. Select **Exact Match** in the **Action** section and click the **New** button (shown below):

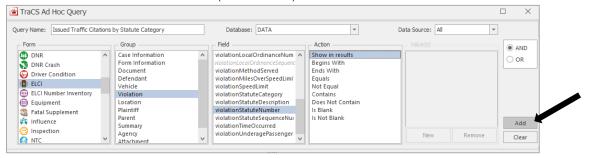


15. Here we will select the status we are interested in. We want to make sure we are looking for *issued* citations that have been transmitted (not voided citations, etc.) so we select **ISSUED**. Click **OK**. Click **Add** to the right of the **Value(s)** box.

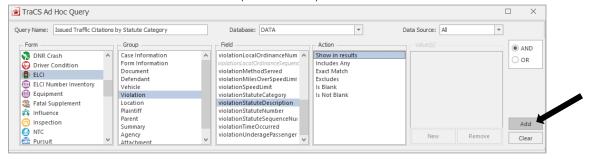




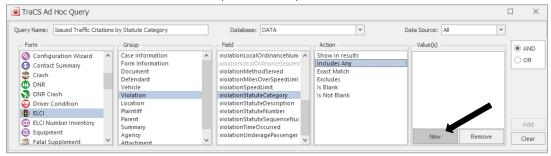
16. Enter criterion 3 (refer to the page 3 of this document — *Table 1: Practice Query 1 Search Criteria*). Select **ELCI** in the **Form** section. Select **Violation** in the **Group** section. Select **violationStatuteNumber** in the **Field** section. Select **Show in results** in the **Action** section and click the **Add** button (shown below):



17. Enter criterion 4 (refer to the page 3 of this document — *Table 1: Practice Query 1 Search Criteria*). Select **ELCI** in the **Form** section. Select **Violation** in the **Group** section. Select **violationStatuteDescription** in the **Field** section. Select **Show in results** in the **Action** section and click the **Add** button (shown below):

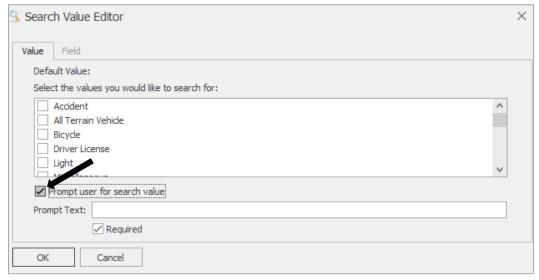


18. Enter criterion 5 (refer to the page 3 of this document — *Table 1: Practice Query 1 Search Criteria*). Select **ELCI** in the **Form** section. Select **Violation** in the **Group** section. Select **violationStatuteCategory** in the **Field** section. Select **Includes Any** in the **Action** section and click the **New** button (shown below):



19. In the Search Value Editor window, check the box next to Prompt user for search value (shown below). Checking this box allows our query to be reusable for several situations. Since we are prompting the user for the search value, this value becomes a parameter.

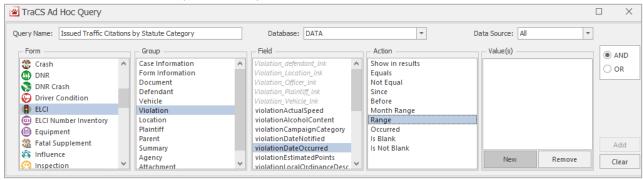
This means that users can use our query for different situations. For example, they can run the query when they are interested in those statutes in the 'Accident' category, but also when they are interested in the 'All Terrain Vehicle' and 'Bicycle' categories as well.



20. For Prompt Text, type-in something like "Select Statute Category(-ies)." This is a message that will pop up every time that a user runs this query indicating to them, they must select one or more categories from this list. Click **OK**. Click **Add** to the right of the **Value(s)** box.

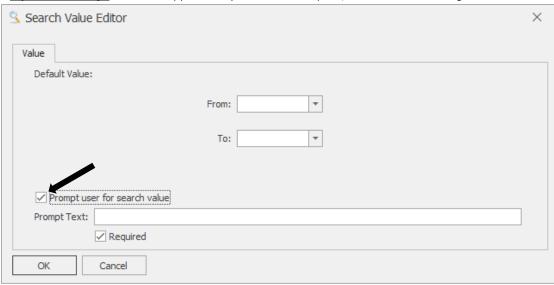


21. Enter criterion 6 (refer to the page 3 of this document — *Table 1: Practice Query 1 Search Criteria*). Select **ELCI** in the **Form** section. Select **Violation** in the **Group** section. Select **violationDateOccurred** in the **Field** section. Select **Range** in the **Action** section and click the **New** button (shown below):

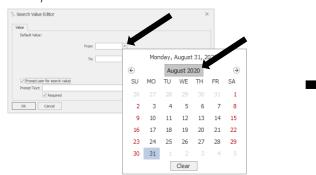


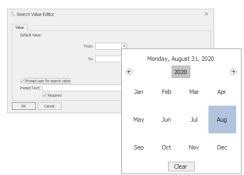
22. Check the Prompt user for search value box and enter something like 'Enter Violation Date Range:' for the Prompt Text.

Note: Checking this box will ensure TraCS asks the user for the Date Range every time this query is run. In the next steps, we add a <u>default date range</u> which will appear every time this box opens, but this can be changed each time the query is run.

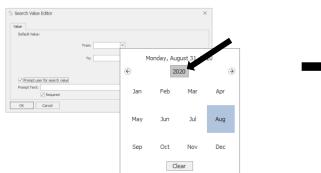


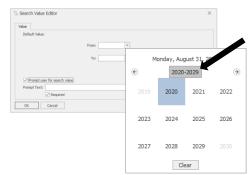
23. To retrieve the correct amount of data for our training purposes, we will choose a default date range of 1/1/2018 – 12/31/2019. Click on the down arrow ( ) next to the From: box. This will open the calendar. Click on the Month Year (shown below) to switch to the month selector.



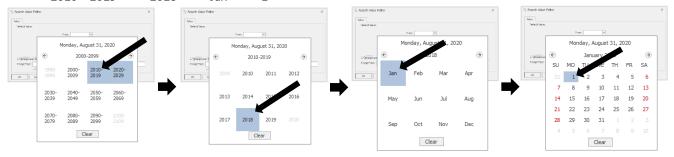


24. Click the year toward the top of the window to switch to the year selector. Click 2020 – 2029 to switch to the decade selector.

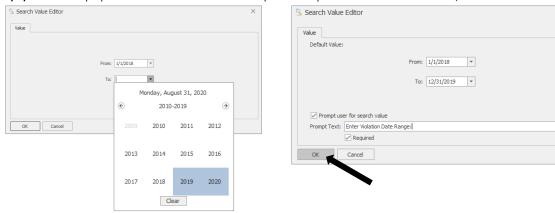




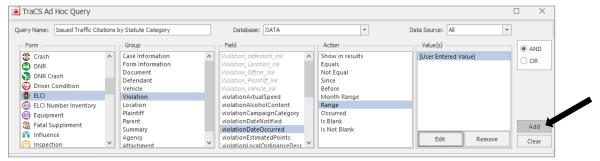
25. Click on 2010 - 2019. Click 2018. Click Jan. Click 1. hello



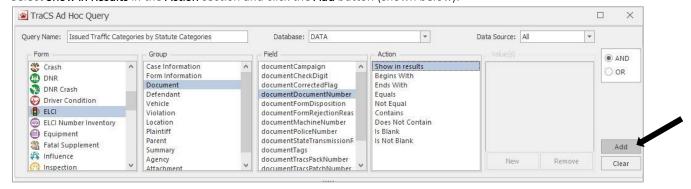
26. 1/1/2018 will populate in the From: field. Repeat the process for the To: field, with a date of 12/31/2019. Click OK.



27. Click Add button.

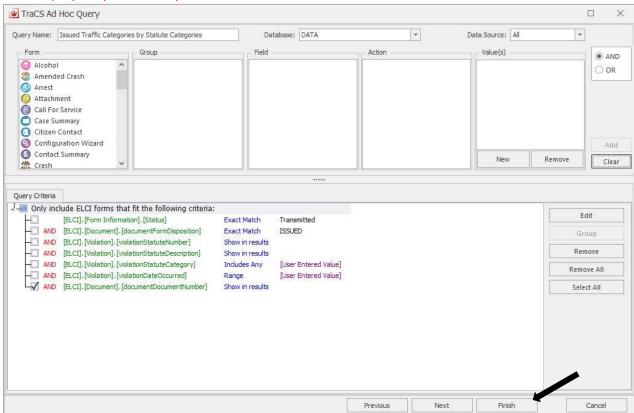


28. Enter the final criterion – criterion 7 (refer to the page 3 of this document – *Table 1: Practice Query 1 Search Criteria*). Select **ELCI** in the **Form** section. Select **Document** in the **Group** section. Select **documentDocumentNumber** in the **Field** section. Select **Show in Results** in the **Action** section and click the **Add** button (shown below):

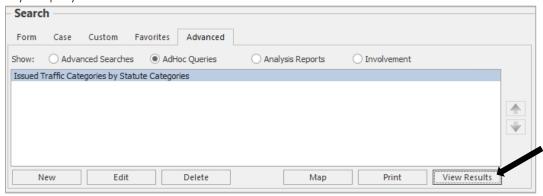


29. Your final query should look like the image below, with all seven criteria from our table appearing in the **Query Criteria** section of the window. Click the **Finish** button to save this query.

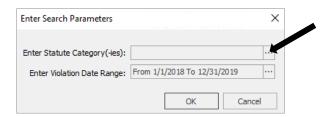
Note: it is very important that the **Finish** button is clicked, if you simply click **Next** without first finishing the query, **TraCS will not** save the query and your work may be lost.



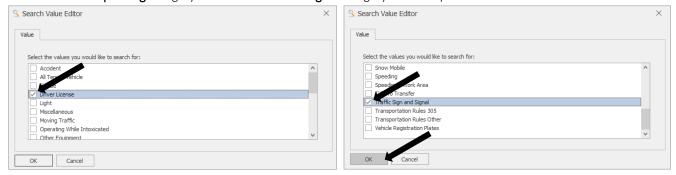
30. The query will appear in the Ad Hoc Queries window on the bottom of the TraCS screen. Click View Results to view the results of your query:

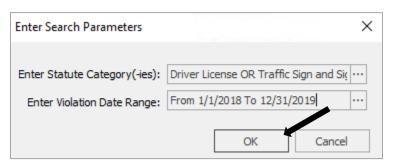


31. After clicking **View Results**, an **Enter Search Parameters** window will appear. Here, we will see the prompts we entered previously asking the user to enter the parameters for the query. We see that our default date appears (if a default was entered), and TraCS is waiting for a Statute Category parameter. Click on the ellipses to open the parameter selection menu.

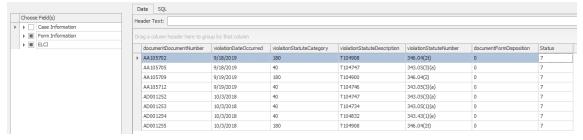


32. For our training purposes, we will select two categories – **Driver License** and **Traffic Sign and Signal**. Scroll down until you find **Speeding** in the list and check the box next to it. Do the same for **Traffic and Signal**. Click **OK**. You will see the two parameters appear in the parameters box separated by the OR keyword. This tells us that results that meet the specified date range and are either of the **Speeding** category or of the **Traffic and Signal** category will be exported. Click **OK**.

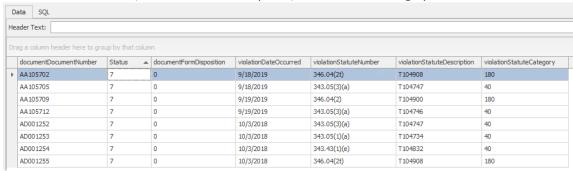




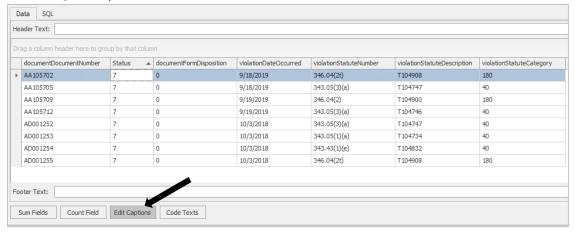
33. You will now be taken to the results screen. In my case, this query returned eight records, as shown below:



Columns can be rearranged by clicking the column header and dragging it to the desired location. Change to order to something more intuitive, such as **documentDocumentNumber** | **Status** | **documentFromDisposition** | **violationDateOccurred** | **violationStatuteNumber** | **violationStatuteDescription** | **violationStatuteCategory**, as shown below:



34. Rename the columns headers to make the data more readable. This can be done by navigating to the bottom of the window and clicking **Edit Captions**.

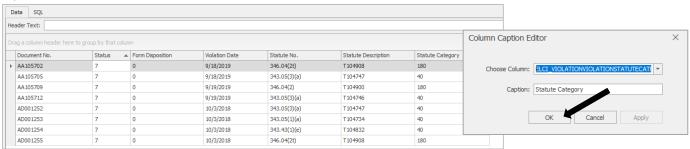


35. Select the column from the dropdown list to change (e.g. ELCI\_DOCUMENTDOCUMENTNUMBER (document Document Number) and edit its caption in the caption field just below the selection field. Click **Apply**.



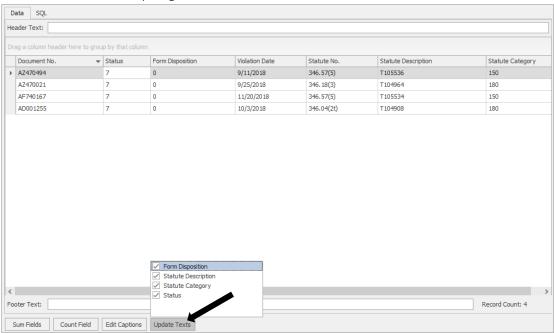
#### Ad Hoc Reporting for Beginners

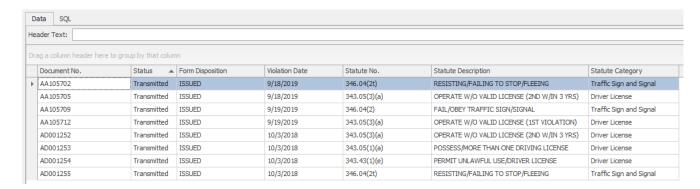
36. Repeat this process for each of the column headers to make them more readable. Once you have changed all column header captions, click **OK**.



37. Now, as you can see, our data still isn't very readable. Values such as '7' appear for **Status**, while **Statute Descriptions** have something like 'T1055536.' These values are values that the TraCS software uses to hold its data, but it doesn't mean anything to us. We need to view the values' **Code Texts** for us to make sense of these values.

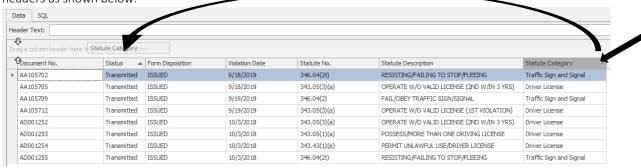
Click the **Code Texts** button just to the right of **Edit Captions**. Check the box next to each of the options and click **Update Texts**. You will see all the data in your grid transform into readable values.



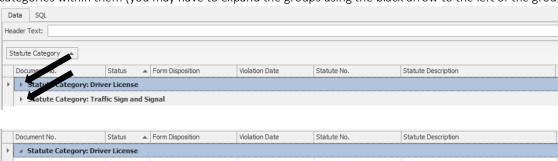


# Ad Hoc Reporting for Beginners

38. We can group by specific column(s) to make our report more readable. Let's group by the **Statute Category** column. Select the **Statute Category** header and drag it into the '*Drag a column header here to group by that column*' space just above the column headers as shown below:

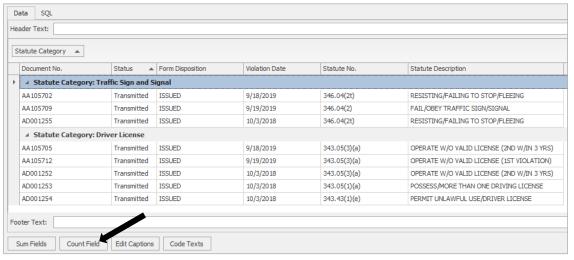


39. As you can see, we now have two separate groups based on our Statute Category, with the records pertaining to those categories within them (you may have to expand the groups using the black arrow to the left of the group names).:

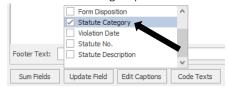


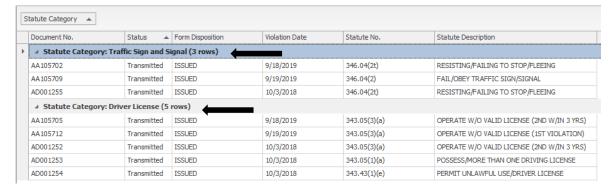
Document No.	Status	Form Disposition	Violation Date	Statute No.	Statute Description				
4 Statute Category: Driver License									
AA105705	Transmitted	ISSUED	9/18/2019	343.05(3)(a)	OPERATE W/O VALID LICENSE (2ND W/IN 3 YRS)				
AA105712	Transmitted	ISSUED	9/19/2019	343.05(3)(a)	OPERATE W/O VALID LICENSE (1ST VIOLATION)				
AD001252	Transmitted	ISSUED	10/3/2018	343.05(3)(a)	OPERATE W/O VALID LICENSE (2ND W/IN 3 YRS)				
AD001253	Transmitted	ISSUED	10/3/2018	343.05(1)(a)	POSSESS/MORE THAN ONE DRIVING LICENSE				
AD001254	Transmitted	ISSUED	10/3/2018	343.43(1)(e)	PERMIT UNLAWFUL USE/DRIVER LICENSE				
Statute Category: Traffic Sign and Signal									
AA105702	Transmitted	ISSUED	9/18/2019	346.04(2t)	RESISTING/FAILING TO STOP/FLEEING				
AA105709	Transmitted	ISSUED	9/19/2019	346.04(2)	FAIL/OBEY TRAFFIC SIGN/SIGNAL				
AD001255	Transmitted	ISSUED	10/3/2018	346.04(2t)	RESISTING/FAILING TO STOP/FLEEING				

40. We can also count fields to get a count of different results of our query by navigating to the bottom of the window and clicking **Count Field**.



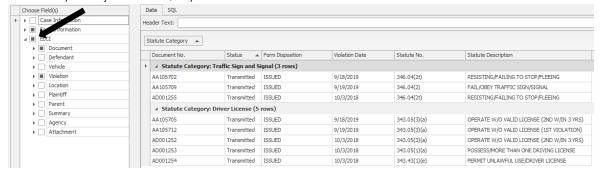
41. Check the box next to **Statute Category** and click **Update Field** to get a total row count of the records contained within the specified categories. In queries with a large amount of records returned, this is a quick way to see how many records are contained within a group.



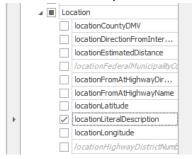


42. Lastly, if there is any more information that we would like to output that we did not add in our query, we can use the **Choose Field(s)** menu on the left-hand portion of the screen to select more fields to show in our results. These are organized in the same way as the Query Builder we saw before.

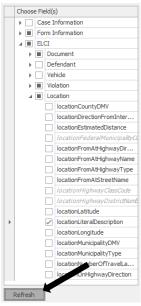
Click on the arrow next to **ELCI** to expand its groups and you will see they are organized using groupings contained within the TraCS Entry Form just as the Query Builder was.



43. Let's add location information for the results in our query. Click on the arrow next to Location and check the box next to locationLiteralDescription.

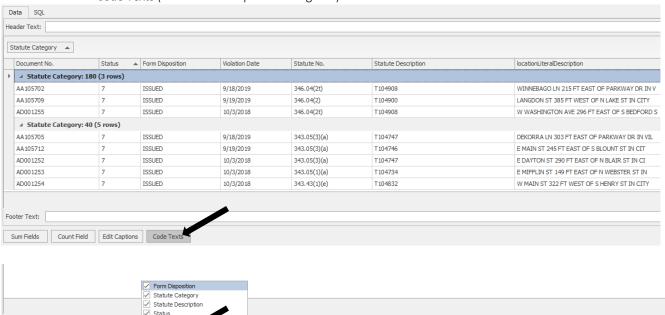


44. Click Refresh on the bottom of the Choose Field(s) menu to add this field to our result shown below.



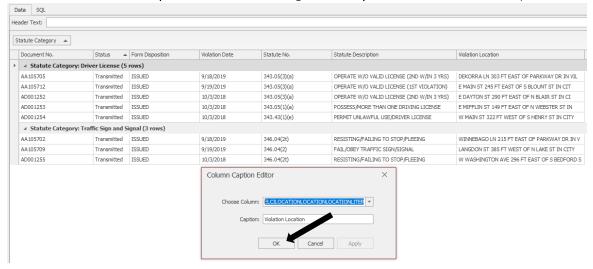
Sum Fields Count Field Edit Captions Update Texts

45. You will see that **locationLiteralDescription** is added to our results. Your **Code Texts** may have reverted to their numerical values. If this is the case, click on **Code Texts** again and check the boxes next to the column names and on **Update Texts** to repopulate the data with the **Code Texts** (as we did in step 35 of this guide).

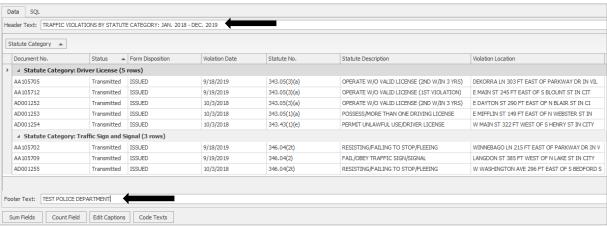


## Ad Hoc Reporting for Beginners

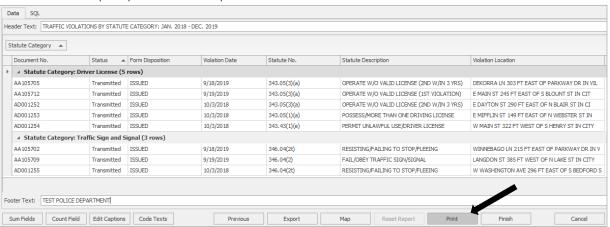
46. Edit the locationLiteralDescription column header using the Edit Captions button as we did in steps 32 – 34 of this guide.



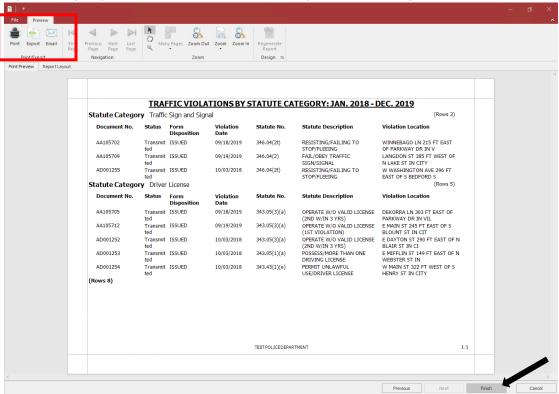
47. Finally, we can finish our report by adding a report header and footer that will be included in the final copy. Click on the field next to Header Text and on the field next to Footer Text to enter a report header and footer, respectively.



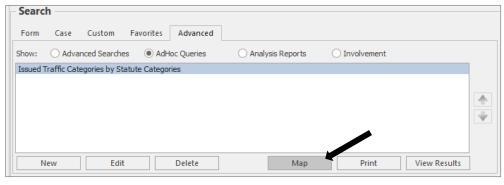
48. Click **Print** to see a print preview of our report.



49. In the Print Preview screen, you will see a preview of how our report is structured. From here, you can print the report, export the report (in formats such as PDF, JPEG, and CSV), and e-mail the report. Click **Finish** to close the report.



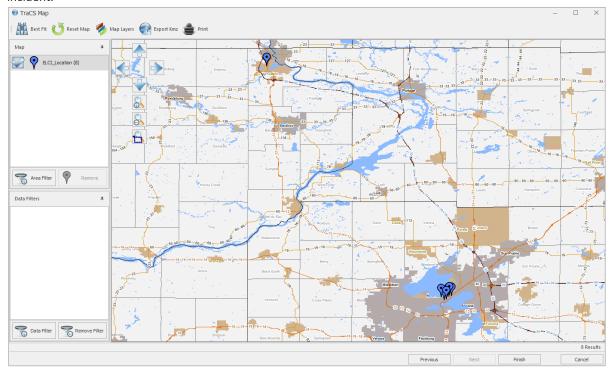
50. After clicking **Finish**, you will be returned to the **TraCS Forms Manager** screen. Select the query again and click the **Map** button.



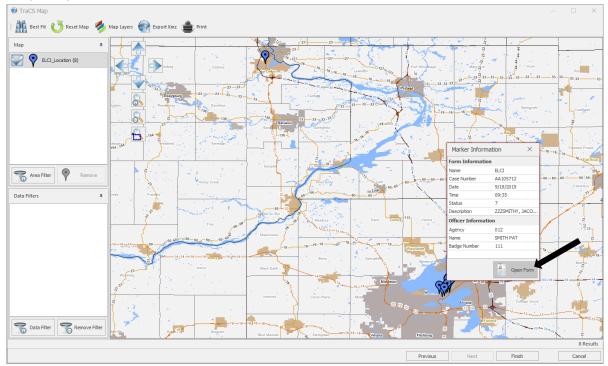
51. You will be asked for the parameters again. You will see that the last-used parameters are filled-in. Queries will always display the last-used parameters in the **Enter Search Parameters** box. Click **OK**.

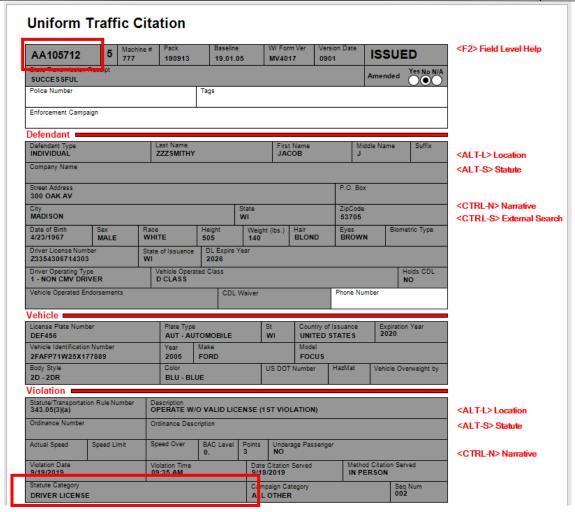


52. A map will appear displaying push-pins for the locations of the results. Right-click on a push-pin to view information on the incident.



53. Clicking Open Form in the Marker Information window that appears will take you directly to the TraCS Entry Form so you can verify data/print off the form.





- End of Document