



California Department of Conservation
Division of Oil, Gas & Geothermal Resources

Data Dictionary for Water Report Form

Water Produced from, or used in Oil and Gas Fields

(Public Resources Code, Division 3, Chapter 1, Article 4, Section 3227)

Second Edition: June 2015



California Department of Conservation
Division of Oil, Gas & Geothermal Resources

Table of Contents

- Introduction
- Water Report Forms
- List of Data Fields and data field usage for each digital file format
- Data Dictionary Template (contains table usage, required, valid data type and format, examples and guidelines)
- List of Data Fields and Definitions

Introduction

Water reporting requirements under Public Resources Code (PRC) Section 3227 specifies the Division of Oil, Gas, and Geothermal Resources (Division) implement online reporting for oil and gas operators of all water produced, or used during oil field operations. The Statute further requires a detailed description of the quality, source, and disposition of all water associated with oil and gas production activities. In order to implement this requirement, the Division has produced the Water Report in Microsoft Excel, which consist of four forms (tables), 110Q water production, 110BQ water injection, 110EQ well allocation list, and 110FQ other water allocation.

This data dictionary was compiled to help operators understand what data is to be reported. This document describes every data field and defines the associated attributes, which are applied across the multiple forms.



Water Report Forms

Form 110Q Water Production Report

Water report form 110Q allows for the reporting of all water produced by each well, and for the allocation of that water to multiple disposition methods. As an example, a well produced 5,000 barrels of water during the first quarter of 2015 (January through March). From that total, 4,000 barrels of water was used in injection wells for enhanced oil recovery, and 1,000 barrels was transferred to another operator within the same oil field. On form (table) 110Q, the operator would report for that well 5,000 barrels of water in data field (1), Total Water Produced; 4,000 barrels of water for Code 05 – Subsurface Injection, in data field (6); and 1,000 barrels of water for Code 07 – Sale/Transfer – other operator or oil field, in data field (6).

The operator can verify all of the fluid volumes entered in the disposition methods equals the total volume reported for the well, by comparing the values in data field (1), Total Water Produced, with the values in data field (2), Calculated Total Water Produced. Calculated Total Water Produced is an automatic summation by Excel of the volumes reported under the disposition methods.

Form 110Q also allows for the reporting of basic untreated water quality (is the water suitable for domestic or irrigation use), and what treatment methods, if any, will be applied to the produced water. The California State Regional Water Quality Control Board having jurisdiction within the area of an oil field, is the authority for determining the standards by which water qualifies as suitable for domestic or irrigation use. Operators are advised to familiarize themselves with the requirements and standards of the regional boards within their operational areas, as the standards may vary from region to region.

There are four primary water treatment methods¹ identified for each water disposal code. The first type is De-oiling, which refers to any method used for separating oil, gas, and sediments from water. Common methods used to encourage fluid separation are gravity/corrugated plate, centrifuge, hydroclone, gas floatation, chemical extraction, oxidizer introduction, absorption, and media filtration.

The second treatment method identified is Disinfection. This method is generally used when water is to be sold or transferred for domestic use or disposal. The most common types of disinfection are chlorination, and ultraviolet (UV) light or ozone exposure.

Desalinization or water softening is the third water treatment method identified. Desalinization is primarily used in areas undergoing steam enhanced oil recovery operations, although it can be used anywhere corrosion, and/or equipment and tubular plugging is a problem. Common methods used to extract salts and minerals from water (water softening) are lime softening, ion exchange, electrodialysis, electrodeionization, capacitive deionization, electrochemical activation, rapid spray evaporation, and freeze thaw evaporation.

The fourth and far less common treatment method is Membrane treatment. Membrane treatment is used primarily for the removal of trace oils, microbial, organics, salts and other contaminants on the micro level. Primary methods are microfiltration, ultrafiltration, nanofiltration, and reverse osmosis.

A fifth water treatment method is available for operators to select. This is the Other treatment method, and would generally only be selected if none of the previous methods described covers the operator's treatment type. Examples of possible treatment methods found here, are trickling filter, constructed wetland treatment – flora and fauna decomposition, and sodium adsorption ratio adjustment.

¹ (J. Daniel Arthur, P.E., Bruce G. Langhus, Ph.D, C.P.G., Chirag Patel, 2005), Technical Summary of Oil & Gas Produced Water Treatment Technologies (All Consulting, LLC, March 2005).



California Department of Conservation
Division of Oil, Gas & Geothermal Resources

Form 110BQ Water Injection Report

Water report form 110BQ allows oil and gas operators to report by well, the amount of water injected into subsurface formations. Similar to form 110Q, an operator can report the multiple sources of water used to make up the total volume of fluid injected by well. As an example, an operator's well injected 4,000 barrels of steam, of which, 3,000 barrels came from the operator's production wells within the same oil field, and 1,000 barrels came from recycled water received from the local sewage treatment plant.

Also like form 110Q, form 110BQ allows the operator to report whether or not the water, in an untreated state, is suitable for domestic or irrigation use, and what treatment, if any, has been applied to the water. If any of the water is obtained from a source outside the operator's own activities within an oil field, the report requires the name of the water source. This includes water transferred by an operator from one oil field to another.

Form 110EQ Water Allocation Report

Water report form 110EQ is used by the operator to report which injection wells are receiving water from a production well, and what portion (barrels) of that water production can be attributed to an injection well. In most cases, operators will calculate the allocation.

Form 110FQ Other Water Allocation Report

Water report form 110FQ allows operators to report water use within oil field operations that cannot be directly tied to a well's production or injection. This form is also used to report water in storage at the end of the reporting period. All water reported on this form must include its intended use. The codes used for this purpose are found in the column description within the List of Data Fields and Definitions section of this document, and under the Data Descriptions tab on the water report.

Examples of the type of reporting that would take place on this form are: an operator purchases 100 barrels of water from a farmer to use for dust control; or at the end of the reporting period, an operator has 8,000 barrels of water in a 10,000 barrel water injection tank.

In the first example, water purchased from a farmer for dust control, the operator would report this use under Code 07 – Other. The same information that is required on forms 110Q, and 110BQ, is required here, except the operator is reporting by field, not well. Also, the volume reported is an aggregate of all the water purchased for that purpose, in that field, during the reporting quarter. Required under Code 07 is the name of the water supplier.



California Department of Conservation
Division of Oil, Gas & Geothermal Resources

List of Data Fields and data field usage for each digital file format

| ID | Data Field | Data fields used in Microsoft Excel format | | | | Data fields used in a CSV or Text File format | | | |
|------|-------------------------------------------------------------------|--------------------------------------------|-------|-------|-------|-----------------------------------------------|-------|-------|-------|
| | | 110Q | 110BQ | 110EQ | 110FQ | 110Q | 110BQ | 110EQ | 110FQ |
| (A) | Operator Name | *X | *X | *X | *X | | | | |
| (B) | Operator Code | *X | *X | *X | *X | X | X | X | X |
| (C) | Quarterly Reporting Period | *X | *X | *X | *X | X | X | X | X |
| (D) | Date Report Prepared | X | X | X | X | X | X | X | X |
| (E) | Report Prepared By | X | X | X | X | X | X | X | X |
| (F) | Field | *X | *X | *X | | | | | |
| (G) | Lease | *X | *X | *X | | | | | |
| (H) | Well Number | *X | *X | *X | | | | | |
| (I) | API Number | *X | *X | *X | | X | X | X | |
| (J) | Pool | *X | *X | | | X | X | | |
| (K) | Pool Code | *X | *X | | | X | X | | |
| (L) | Pool Well Type | *X | *X | | | X | X | | |
| (1) | Total Water, Total Water Produced/Steam Injected (BBL) | X | X | | X | X | X | | X |
| (2) | Calculated Total Water, Total Water Produced/Steam Injected (BBL) | X | X | | X | | | | |
| (3) | Not used | | | | | | | | |
| (4) | Produced Water Disposal Method | X | | | | X | | | |
| (5) | Not used | | | | | | | | |
| (6) | Water Produced (BBL) | X | | | | X | | | |
| (7) | Disposition of Water (Code #) | X | | | | X | | | |
| (8) | If Untreated, is Water Suitable for Domestic or Irrigation Use? | X | X | | X | X | X | | X |
| (9) | Is Water to be (Has Water been) Treated by Operator? | X | X | | X | X | X | | X |
| (10) | Water Treatment Method(s) | X | X | | X | X | X | | X |
| (11) | Name of Water Source/Disposal Recipient | X | X | | X | X | X | | X |
| (12) | Type of Water Source/Disposal Recipient | X | X | | X | X | X | | X |
| (13) | Not used | | | | | | | | |
| (14) | Water Source | | X | | X | | X | | X |
| (15) | Not used | | | | | | | | |
| (16) | Water or Steam Injected (BBL) | | X | | | | X | | |
| (17) | Source of Water | | X | | | | X | | |
| (18) | Allocated Volume from Production Well (BBL) | | | X | | | | X | |
| (19) | API Number | | | *X | | | | X | |
| (20) | Field | | | | X | | | | X |
| (21) | Water (BBL) | | | | X | | | | X |
| (22) | At the Time of this Report, is Water in Storage Onsite? | | | | X | | | | X |
| (23) | Intended Use of Water | | | | X | | | | X |

"X" - indicates that the associated field name is referenced and/or applied to the form listed at the top of the column.

"*" - indicates that this data field will be prepopulated by the Division for those Operators reporting using a Microsoft Excel reporting format.



California Department of Conservation
Division of Oil, Gas & Geothermal Resources

Data Dictionary Template

(ID #) – Name of Data Field

| | |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | One or two sentence description of the field name. |
| Used in the following tables: | List of tables where the field name is used. |
| Required? : | Some fields are required to be populated while others may be dependent upon other fields, any special conditions are specified here. |
| Valid data type and format: | This specifies what types of characters can be used (ex: such as a text or number) and any limitations on them (ex: cannot exceed a number of characters). |
| Examples of acceptable values: | Examples of acceptable formats for the type of data. |
| Usage Guidelines & Restrictions: | If there are any limitations placed or calculations applied to the field name they will be discussed here. Some fields require additional information located in other columns or tables, those instructions will be documented here. |



List of Data Fields and Definitions

QUARTERLY WATER PRODUCTION REPORT

| | | | | | | | | | | | |
|----------------------|------------|-------|-------|-------------|------------|------|-----------|----------------|--|--|--|
| Operator | | (A) | | | | | | | | | |
| Date Report Prepared | | (D) | | | | | | | | | |
| Report Prepared By | | (E) | | | | | | | | | |
| (B) | (C) | (F) | (G) | (H) | (I) | (J) | (K) | (L) | | | |
| Opr_Code | Qtr_Period | FIELD | LEASE | Well Number | API Number | POOL | Pool Code | Pool Well Type | | | |

(A) – Operator Name

Description: The name of the owner of the well.
Used in the following tables: 110Q, 110BQ, 110EQ, 110FQ
Valid data input and format: Text
Examples of acceptable values: Chevron U.S.A.; Seneca Resources Corp;
Guidelines & Restrictions:

(B) – Operator Code

Description: 5 digit code assigned by the Division to uniquely identify an Operator
Used in the following tables: 110Q, 110BQ, 110EQ, 110FQ
Valid data input and format: Text
Examples of acceptable values: H2800
Guidelines & Restrictions:

(C) – Quarterly Reporting Period

Description: 6 digit code used to identify the quarterly reporting period.
Used in the following tables: 110Q, 110BQ, 110EQ, 110FQ
Valid data input and format: Text
Examples of acceptable values: 2015Q1; 2015Q02;2015Q3;2015Q4
Guidelines & Restrictions: "YYYY" for 4 digit year and "QQ" for 2 digit quarter
 Q1 = 1st Reporting quarter of the year
 Q2 = 2nd Reporting quarter of the year
 Q3 = 3rd Reporting quarter of the year
 Q4 = 4th Reporting quarter of the year

(D) – Date Report Prepared

Description: The Month, Day and Year the quarterly report was prepared.
Used in the following tables: 110Q, 110BQ, 110EQ, 110FQ
Valid data input and format: Date
Examples of acceptable values: 2/25/2015
Guidelines & Restrictions: DD/MM/YYYY



California Department of Conservation
Division of Oil, Gas & Geothermal Resources

(E) – Report Prepared By

Description: The name of the individual preparing the report.
Used in the following tables: 110Q, 110BQ, 110EQ, 110FQ
Valid data input and format: Text
Examples of acceptable values: John M. Text
Guidelines & Restrictions:

(F) – Field

Description: The name of the oil field boundary where the well is located within.
Used in the following tables: 110Q, 110BQ, 110EQ, 110FQ
Valid data input and format: Text
Examples of acceptable values: Lost Hills; Kern River;
Guidelines & Restrictions:

(G) – Lease

Description: The name of the lease where the well is located.
Used in the following tables: 110Q, 110BQ, 110EQ, 110FQ
Valid data input and format: Text
Examples of acceptable values:
Guidelines & Restrictions:

(H) – Well Number

Description: The well number of the well.
Used in the following tables: 110Q, 110BQ, 110EQ, 110FQ
Valid data input and format: Text
Examples of acceptable values:
Guidelines & Restrictions:

(I) – API Number

Description: Division assigned API number, consisting of 3 digit county number and 5 digit unique well number. (No dashes between county and well number)
Used in the following tables: 110Q, 110BQ, 110EQ
Valid data input and format: 8-digit number
Examples of acceptable values: 03012345; 02912345
Guidelines & Restrictions: API numbers often have a hyphen punctuation mark after the county code, please remove the hyphen mark.
030-12345 is not valid, 03012345 is valid.



California Department of Conservation
Division of Oil, Gas & Geothermal Resources

(J) – Pool

| | |
|---------------------------------------|----------------------------------------------------------------------------------------------------------|
| Description: | An underground reservoir containing a common accumulation of crude petroleum oil or natural gas or both. |
| Used in the following tables: | 110Q, 110BQ |
| Valid data input and format: | Text |
| Examples of acceptable values: | McGrath; Cymric |
| Guidelines & Restrictions: | |

(K) – Pool Code

| | |
|---------------------------------------|-----------------------------------------------------------------------------------|
| Description: | A 2-digit unique number code that is used to identify a pool within an oil field. |
| Used in the following tables: | 110Q, 110BQ |
| Valid data input and format: | 2-digit number |
| Examples of acceptable values: | 00;15;99 |
| Guidelines & Restrictions: | |

(L) – Pool Well Type

| | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | A 2-digit text code used to identify the status of a well. The code helps indicate whether an oil well is producing or injecting fluids or gases into a pool code. |
| Used in the following tables: | 110Q, 110BQ |
| Valid data input and format: | 2-digit text |
| Examples of acceptable values: | OG;SC;WF;WD;SF |
| Guidelines & Restrictions: | |



(2) – Calculated Total Water, Calculated Total Water Produced/Steam Injected (BBL)

| | |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | This value is auto populated using the total number of barrels of water that has been allocated to each disposition and/or water source code. It is a tool used for informational purposes only so that the appropriated volumes are totaling the total amount manually entered total in (1). |
| Used in the following tables: | 110Q, 110BQ, 100FQ |
| Valid data input and format: | Data is auto populated using columns (6) for 110Q, columns (16) for 110BQ and columns (21) for Other Water Allocation. |
| Examples of acceptable values: | |
| Guidelines & Restrictions: | |

(4) – Produced Water Disposal Method

| | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | There are 12 produced water disposal methods. More than one method can be used to allocate where a volume of produced water from a production well is being disposed to. |
| Used in the following tables: | 110Q |
| Valid data input and format: | |
| Examples of acceptable values: | |
| Guidelines & Restrictions: | IMPORTANT - Columns (8) – (12) are required to be filled out when a volume is applied to a produced water disposal method. |



(6) – Water Produced (BBL)

Description: The number of barrels of produced water during the quarter that was allocated to a produced water disposal method.

Used in the following tables: 110Q

Valid data input and format: Numeric only with no decimal places from 0 to 99,999,999

Examples of acceptable values: 145; 1450; 14500; 145000; 1450000

Guidelines & Restrictions: If multiple disposal methods are used then each method's individual volume (column (6)) must add up to the total water produced in column (1). (see diagram below)

| (1) | (4) Produced Water Disposal Method | | | | | | | | | | | | | (4) Produced Water Disposal Method | | | | | | | | | | | | | (4) Produced Water Disposal Method | | | | | | | | | | | | |
|-------------------------------------|------------------------------------|-------------------------|-----|-----|------|------|------|------|----------------------------|-------------------------|-----|-----|------|------------------------------------|------|------|----------------------------|-------------------------|-----|-----|------|------|------|------|--|--|------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | | | | | | | | | | | | | | | |
| TOTAL WATER PRODUCED (BBL) | WATER PRODUCED (BBL) | DISPOSITION OF WATER | | | | | | | WATER PRODUCED (BBL) | DISPOSITION OF WATER | | | | | | | WATER PRODUCED (BBL) | DISPOSITION OF WATER | | | | | | | | | | | | | | | | | | | | | |

$$(1) = (6) + (6) + (6)$$

| | | | |
|-------|-------|----------------------------|------------------------------|
| 110Q | 110BQ | 110EQ Well Allocation List | 110FQ Other Water Allocation |
| READY | | | |



(7) – Disposition of Water

Description: The produced water disposal method used to dispose of produced water from a production well.

Used in the following tables: 110Q

Valid data input and format:

| CODE | WATER DISPOSITION METHODS |
|------|-------------------------------------------------------------|
| 01 | Sump (unlined) – Evaporation and Percolation (infiltration) |
| 02 | Sump (lined) – Evaporation |
| 03 | Surface water discharge – Ocean, Lake, Pond, etc... |
| 04 | Domestic Sewer System |
| 05 | Subsurface Injection – In oil field by Operator |
| 06 | Other – Commercial disposal, industrial use, etc... |
| 07 | Sale/Transfer – To other operator or oil field |
| 08 | Surface Discharge – Land |
| 09 | Operator’s facilities within oil field |
| 10 | Well Stimulation Treatment |
| 11 | Sale/Transfer – Domestic Use |
| 12 | Drilling, well work, and well abandonments |

Examples of acceptable values: 01;02;03;04;05

Guidelines & Restrictions: Water disposition methods are listed by CODE in order from lowest to highest across the 110Q form. If a water disposition method is used then columns (6) – (12) are required to be filled out for that specific water disposition method.

Water disposition method definitions

01 – Sump (unlined) - Evaporation and Percolation (infiltration): Water is placed into an unlined sump, allowed to percolate into the ground and/or evaporate into the atmosphere.

02 – Sump (lined) – Evaporation: Water is placed into a lined sump, open tank, or similar container for evaporation into the atmosphere.

03 – Surface Water Discharge: Water is discharged into a surface body of water such as an ocean, lake, pond, river, creek, aqueduct, canal, stream, or watercourse.

04 – Domestic Sewer System: Water is placed into a sewage disposal or treatment system, which is generally operated by a municipality or consortium for domestic waste.

05 – Subsurface Injection: Water is injected into the subsurface of the same oil field and operator, from which it was produced. Please complete the Well Allocation List table. (Note: the volume attributed for each well for this disposition type on form 110Q, should match the sum for each well on the Well Allocation List form.)

06 – Other: Water is disposed of by another method, such as commercial disposal, industrial use, non-class II wells, etc...

07 – Sale/Transfer – To other operator or oil field: Water is sold or transferred to another operator or oil field.

08 – Surface Discharge: Water is used on oil field land or surface for dust control, landscaping, pasture augmentation, infiltration, evaporation, etc...

09 – Operator’s facilities within oil field: Water is used for operator’s facilities within the oil field (i.e., tankage, equipment operation, onsite storage, equipment/facilities cleaning and testing, etc...)

10 – Well Stimulation Treatment: Water is used in a well stimulation treatment operation (i.e., hydraulic fracturing, acid matrix, acid fracturing, etc...)

11 – Sale/Transfer – Domestic Use: Water is used for agriculture, irrigation, water replenishment, water banking, livestock, etc..

12 – Drilling, well work, and well abandonments: Water is used to support well drilling, rework, and abandonment operations, for such things as well control fluid, drilling mud, cementing, etc...



California Department of Conservation
Division of Oil, Gas & Geothermal Resources

(8) – If Untreated, is Water Suitable for Domestic or Irrigation Use?

- Description:** Specify if the water is suitable for Domestic or Irrigation use. The number of Total Dissolved Solids (TDS) can be applied here to determine whether the water is suitable or not. Water that has a TDS value of more than 10,000 parts per million (ppm) would not be considered suitable for domestic or irrigation use and a TDS value less than 10,000 ppm would be considered suitable.
- Used in the following tables:** 110Q, 110BQ, 110FQ
- Valid data input and format:** Text
- Examples of acceptable values:** Yes; No
- Guidelines & Restrictions:** The values (Yes/No) are applied using a drop down list in the excel spreadsheet form.

(9) – Is Water to be (Has Water been) Treated by Operator?

- Description:** Is the produced water going to be treated or has it already been treated by the Operator?
- Used in the following tables:** 110Q, 110BQ
- Valid data input and format:** Text
- Examples of acceptable values:** Yes; No
- Guidelines & Restrictions:** The values (Yes/No) are applied using a drop down list in the excel spreadsheet form.



(10) – Water Treatment Method(s)

- Description:** The type of water treatment method(s) applied to the produced or injected water.
- Used in the following tables:** 110Q, 110BQ, 110FQ
- Valid data input and format:**
- | WATER TREATMENT METHODS | |
|-------------------------|--------------------|
| | De-oiling |
| | Disinfection |
| | Desalinization |
| | Membrane treatment |
| | Other treatment |
- Examples of acceptable values:** Yes; No
- Guidelines & Restrictions:** Water Treatment method definitions
De-oiling: Separation of hydrocarbons from water by use of gravity, physical, chemical, filtering and/or absorption processes.
Disinfection: Treatment of water for microbial contamination.
Desalinization: Treatment (softening) of water to reduce total dissolved solids, such as salts, and heavy metals.
Membrane treatment: Treatment of water by microfiltration or reverse osmosis to purify water through the removal of trace amounts of hydrocarbons, microbial, organics, and solids.
Other treatment: Other treatment or processes not covered by the methods listed, such as treatment of NORM, and unconventional processes.
- NOTE: If more than one method is applied please identify those methods in the adjacent columns.
- The values (Yes/No) are applied using a drop down list in the excel spreadsheet form.

(11) – Name of Water Source/Disposal Recipient

- Description:** The general name or entity of the water or disposal source.
- Used in the following tables:** 110Q, 110BQ, 110FQ
- Valid data input and format:** Text
- Examples of acceptable values:** West Kern Water District; Operator Name; Water supplier name; Name of business or entity; California Aqueduct
- Guidelines & Restrictions:** If multiple names are required to be entered then please separate the names using a semicolon “;”.



(12) – Type of Water Source/Disposal Recipient

Description: A specific type of water or disposal source, if any.
Used in the following tables: 110Q, 110BQ, 110FQ
Valid data input and format:

| WATER SOURCE OR DISPOSAL RECIPIENT TYPES | |
|------------------------------------------|-------------|
| | |
| | Ocean |
| | Lake |
| | Pond |
| | River |
| | Creek |
| | Aqueduct |
| | Canal |
| | Watercourse |

Examples of acceptable values: Ocean; Lake; Pond; River; Creek; Aqueduct;
Guidelines & Restrictions: The type of water source and/or disposal recipient are applied using a drop down list in the excel spreadsheet form.

This field only applies if Code 03 (Surface Water Discharge) is used for a disposition code and/or Code 04 (Surface Water) for a water source code.

(14) – Water Source

Description: There are 11 water source methods. More than one method can be used to allocate where a volume of water is sourced from.
Used in the following tables: 110BQ, 110FQ
Valid data input and format:
Examples of acceptable values:
Guidelines & Restrictions: **IMPORTANT** - Columns (8) – (12) are required to be filled out when a volume is applied to a water source.



(16) – Water or Steam Injected (BBL)

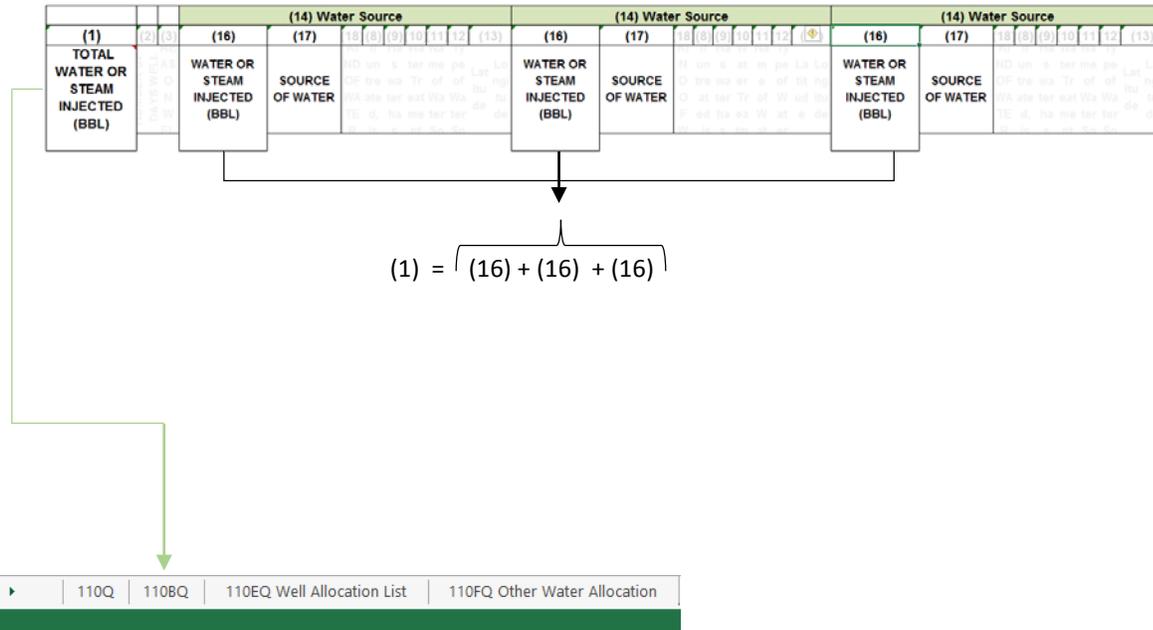
Description: The number of barrels of water or steam injected during the quarter for a specific water source.

Used in the following tables: 110BQ

Valid data input and format: Numeric only with no decimal places from 0 to 99,999,999

Examples of acceptable values: 145; 1450; 14500; 145000; 1450000

Guidelines & Restrictions: If multiple water sources are used then each source's individual volume (16) must add up to the total water or steam injected in column (1). (see diagram below)





(17) – Source of water

Description: The source of the injected water or injected steam.
Used in the following tables: 110BQ
Valid data input and format:

| CODES | SOURCES OF WATER |
|-------|--------------------------------------------------------------------------------------|
| 01 | Oil or gas well produced – In oil field by operator |
| 02 | Water source well – In oil field by operator |
| 03 | Domestic Water System – Fresh water |
| 04 | Surface Water – Ocean, Lake, Pond, River, Creek, etc... |
| 05 | Industrial Waste – Class II fluid treated by 3 rd party |
| 06 | Domestic Waste Water Treatment Facility – Recycled water |
| 07 | Other - Specify source |
| 08 | Oil or gas well produced – Transferred or purchased from other operator or oil field |
| 09 | Well Stimulation Treatment – Recycled fluid |
| 10 | Other class II Recycled fluid source – In oil field by operator |
| 11 | Recycled class II fluids from operator’s drilling... |

Examples of acceptable values: 01;03;11

Guidelines & Restrictions: Water sources are listed by CODE in order from lowest to highest across the 110BQ form. If a water source is used for injection purposes then columns (6) – (12) are required to be filled out for that specific water source.

Source of water definitions

01 - Oil or gas well produced – In oil field by operator:

Produced from an oil or gas well, and used within the same field by the same operator from which it was produced.

02 - Water source well – In oil field by operator: Produced from a water source well and used within the same field by the same operator from which it was produced.

03 - Domestic Water System – Fresh water: Obtained from domestic fresh water system (water district, municipality, public or private entity) where the water is primarily intended for residential or commercial use.

04 - Surface Water – Ocean, Lake, Pond, River, Creek, etc...: Extracted from a surface water body such as an ocean, lake, pond, river, creek, aqueduct, canal, stream, or watercourse.

05 - Industrial Waste – Class II fluid treated by 3rd party: Class II fluid obtained for disposal in a commercial class II well.

06 - Domestic Waste Water Treatment Facility – Recycled water: Obtained as recycled water from a domestic waste water treatment facility

07 - Other - Specify source: This category is used for tracking all non-class II fluid used in EPA wells, and monitored by the Division. This category is also used for all other class II fluid not covered by the defined water source categories. When such is the case, the source of the fluid must be specified (i.e. XYZ refinery waste, John's Automotive Service waste pit reclamation ...).

08 - Oil or gas well produced – Transferred or purchased from other operator or oil field: Obtained as a purchase/transfer from a produced oil or gas well from another operator or oil field. This is not to be used for commercial class II wells.

09 - Well Stimulation Treatment – Recycled fluid: Produced as flowback fluids after the completion of a well stimulation treatment operation (i.e., hydraulic fracturing, acid matrix, acid fracturing, etc...)

10 - Other class II Recycled fluid source – In oil field by operator: In oil field by Operator (i.e., tankage, onsite storage, sumps, cellars, spillage-cleanup...)

11 - Recycled class II fluids from operator’s drilling...: Class II fluid recycled from operator's drilling, rework, and abandonment operations, including recovered well control fluid, well cleanup and displacement fluids, etc...



(18) – Allocated Volume from Production Well (BBL)

| | |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | The number of barrels of produced water injected during the quarter from an Operator owned production well(s) into an injection well(s) owned by the same Operator. |
| Used in the following tables: | 110EQ |
| Valid data input and format: | Numeric only with decimal places from 0 to 99,999,999.99999 |
| Examples of acceptable values: | 145.12345; 1450; 14500; 145000; 1450000.12345;0.12345 |
| Guidelines & Restrictions: | If the volume of produced water from a production well is allocated to more than one injection well, then each injection well will need to be identified and the appropriate volume entered in (18). The total produced water volume from the production well will need to equal the sum of the allocated volumes to all the injection wells. |

(19) – API Number

| | |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | The API number of the injection well that has been used to allocate a volume of produced water from a production well during the quarter. |
| Used in the following tables: | 110EQ |
| Valid data input and format: | 8-digit number |
| Examples of acceptable values: | 03012345; 02912345 |
| Guidelines & Restrictions: | API numbers often have a hyphen punctuation mark after the county code, please remove the hyphen mark. 030-12345 is not valid, 03012345 is valid. |

(20) – Field

| | |
|---------------------------------------|-------------------------------------------------------------------------------------|
| Description: | Name of the oil field where water is being used for oil and gas related activities. |
| Used in the following tables: | 110FQ |
| Valid data input and format: | Text |
| Examples of acceptable values: | Kern River; Rio Bravo; Kern Front; Kern Bluff |
| Guidelines & Restrictions: | |

(21) – Water (BBL)

| | |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | The number of barrels of water from a water source that has been used or is intended to be used for a purpose. The intended purpose is column 23. |
| Used in the following tables: | 110FQ |
| Valid data input and format: | Numeric only with no decimal places from 0 to 99,999,999 |
| Examples of acceptable values: | 145; 1450; 14500; 145000; 1450000 |
| Guidelines & Restrictions: | |



(22) – At the Time of the Report, is Water in Storage Onsite?

Description: Yes indicates that the water was held in storage at the end of the current quarter. No indicates that the water has been used within the current quarter.

Used in the following tables: 110FQ

Valid data input and format: Text

Examples of acceptable values: Yes; No

Guidelines & Restrictions: The values (Yes/No) are applied using a drop down list in the excel spreadsheet form.

(23) – Intended Use of Water

Description: Intended use of the water stored on the oil field. This includes water that was actually used at any time during the quarter and/or water that is intended to be used.

Used in the following tables: 110FQ

Valid data input and format:

| CODE | TYPES OF INTENDED USE |
|------|-------------------------------------------------------------|
| 01 | Sump (unlined) – Evaporation and Percolation (infiltration) |
| 02 | Sump (lined) – Evaporation |
| 03 | Surface water discharge – Ocean, Lake, Pond, etc... |
| 04 | Domestic Sewer System |
| 05 | Subsurface Injection – In oil field by Operator |
| 06 | Other – Commercial disposal, industrial use, etc... |
| 07 | Sale/Transfer – To other operator or oil field |
| 08 | Surface Discharge – Land |
| 09 | Operator’s facilities within oil field |
| 10 | Well Stimulation Treatment |
| 11 | Sale/Transfer – Domestic Use |
| 12 | Drilling, well work, and well abandonments |

Examples of acceptable values: 01;02;04;12

Guidelines & Restrictions: Please refer to (7) – Disposition of water for code definitions.