

## WELL NAMING AND NUMBERING STANDARDS

The Minerals Management Service (MMS) uses four distinct names and numbers to uniquely identify each well, wellbore, and well completion. They are:

- **American Petroleum Institute (API) well number.**
- **Producing interval code.**
- **Outer Continental Shelf (OCS) lease number, well or well completion name.**
- **Well name suffix.**

We primarily use the API well number and producing interval code to manage digital data. The OCS lease number, well or well completion name, and well name suffix are still prevalent in reports, surveys, correspondence, and verbal communications. This document includes definitions, instructions, and exhibits showing how we determine well names and numbers for wells located in the offshore Federal areas that MMS manages. The examples include many of the unusual or new types of wells, well completions, and producing situations where applying the standards is more complicated. The MMS District Offices assign and/or establish this nomenclature when well permits, notices, and reports are approved and/or processed. Additional examples can be found in the MMS Field Operations Reporter's Handbook which provides specific guidance on how to prepare and submit well permits, notices, and reports to the District Offices. The Handbook is available from the Regional Public Information Offices and the website <http://www.gomr.mms.gov/homepg/mmsforms/reportershandbook.pdf>.

This standard makes several changes to, and supersedes, previous MMS standards. However, you should not file corrected permits, notices, or reports solely to comply with these changes. When we discover, or you identify to MMS, an unnumbered drilled hole, we will assign an MMS API number according to this standard if we have the basic data describing the well, such as offshore area, block, lease number, relevant dates, and key measured depths.

### Definitions

**Bypass** - a remedial drilling effort in which portions of a hole are redrilled around junk (i.e., lost tools, pipe, or other material blocking the hole), "lost holes" are redrilled, or "key seats" or "crooked holes" are straightened. This is also called a mechanical sidetrack. (See Exhibit 3.)

**Capacity well** - a well completion with two or more tubing strings producing or capable of producing from the same reservoir. (See Exhibit 10.)

**Horizontal well** - a well with a borehole whose angle of deviation is 75 degrees or greater for more than four consecutive directional survey points. (See Exhibit 13.)

**Multilateral well** - a well with two or more wellbores, usually but not necessarily drilled and completed horizontally or highly directionally, sharing common surface casing. (See Exhibit 14.)

**Sidetrack** - a drilling effort in which an additional hole is drilled by leaving a previously drilled hole at some depth below the surface and above the total depth. A whipstock or cement plug is set in the previously drilled hole, which is the starting point for the sidetracking operations. The drilling of a well after a slot reclamation (which previously had a well) is considered a sidetrack. This section of the hole is directionally drilled to a new objective bottomhole location (target). This is also called a geologic sidetrack. (See Exhibit 1.)

**Splitter wells** - two or more wells drilled, cased, and completed, sharing a common borehole at the surface but allowing independent production and individual access to each well. (See Exhibit 15.)

**Well** - one or more wellbores drilled into the Earth for the purpose of either finding or producing underground resources or providing services related to the production of underground resources.

**Wellbore/borehole** - a unique, oriented hole from the bottom of a drilled interval to the surface. If more than one path exists from a surface location to bottom hole point(s), then more than one wellbore exists.

**Well completion** - a distinct physical arrangement within a wellbore that provides an isolated conduit for the production or injection from/to one or more sets of perforations or open hole intervals.

### API Well Number

For offshore Federal operations, MMS assigns API numbers according to the “**API Well Number and Standard State and County Numeric Codes Including Offshore Waters, API Bulletin D12A**” (published in January 1979); and the instructions and examples in this document. Where these two differ, this document supersedes the API standard. The differences result from when MMS issued NTL 97-2N in 1997, and we began issuing API numbers to new bypasses and assigning API numbers to historical bypasses to better manage the data collected from drilling operations. API Bulletin D12A recommended reserved sidetrack codes for remedial sidetracks only be assigned for proprietary use by companies and data systems. The D12A committee did not anticipate that we would want to manage the data as well.

We assign the API number to the original wellbore(s) when we approve **Form MMS-123, Application For Permit To Drill (APD)**.

We assign API well numbers for subsequent sidetracks and bypasses with **Form MMS-124, Sundry Notices and Reports on Well**. We sequentially increment the wellbore (WB) codes, consisting of the 11th and 12th digits of the API well number, for each subsequent wellbore (sidetrack or bypass) drilled. This includes all sidetracks and all bypasses for which you collect any geologic data (well logs, velocity surveys, core analyses, etc.), or you run any directional surveys.

- If a bypass is less than 100 feet in length and has no associated geologic data or directional survey, we will not assign an API well number.

- Unless a well deepening is to a new target location, we will not assign a new API well number. In these cases, we will increment the API number WB code and use a sidetrack (ST) identifier for the well name suffix (see section on well name suffix).

The standard format 12-digit API well number is structured as follows:

<u>State Code</u>	<u>County Code</u>	<u>Sequence Code</u>	<u>WB Code</u>
99	999	99999	99

- **State codes** are two digits. The standard API state or pseudo state codes must be used.
- **County codes** are three digits. The standard API county or pseudo-county codes must be used.
- **Unique well codes** are five digits. For OCS wells, MMS or the appropriate coastal state sequentially assigns a unique number from 1 to 60,000 for every well permitted for each county or pseudo-county.
- **WB codes** are two digits. We identify the original hole by using a WB code of “00.” For each and every sidetrack, bypass, or other wellbore drilled after the original hole (except well deepenings to the original intended target), we sequentially increment and assign the WB code. We changed the name of this code from the API Standard “ST” to “WB” to reflect the broader use of the code in this standard so as to identify all wellbores rather than just geologic sidetracks.

For various reasons in the past, we did not assign MMS API numbers to some sidetracks and bypasses, and we accepted well name suffixes on various documents without any validation. For historic wells without MMS API numbers or validated well name suffixes, we will validate existing operator nomenclature or assign new names and numbers using WB codes in the range 70-89 when we obtain supporting data. **(See Exhibit 3.) We will not change existing API numbers already assigned, including WB codes, to comply with this standard.**

If we have not assigned an API number for an OCS well, or if an operator or MMS cannot find the API number, then we will assign a temporary sequence number between 85,000 and 90,000 for the operator to use until we locate the permanent number or the appropriate District Office assigns a permanent number.

### **Producing Interval Code**

We establish the **producing interval code**, sometimes referred to as the completion code, for each well completion when we accept and process **Form MMS-125, Well Summary Report**.

- The 3-character producing interval code (ANN where A = an alpha character and NN = numeric characters) is a separate identifier and is not part of the 12-digit API number. However, it does complete the well number for reporting purposes.

- You select the first character (alpha) of the code based upon the number of tubing strings in the wellbore that are capable of production. For example, a producing interval code of “S01” indicates a single tubing string; “D01” indicates a dual completion. (See Exhibits 4 through 6.)

**Note:** In the case of a tubingless or other completion where production from one reservoir flows through a tubing string and production from another reservoir through the annulus, the first alpha character of the producing interval codes will be **D**. In this case, this does not signify the presence of two tubing strings, but indicates there are two separate production streams with the annulus acting as a tubing string. (See Exhibit 7.)

- The numeric portion is uniquely and permanently related to a specific completion zone or producing configuration within a wellbore. You select the numbers sequentially beginning with the number “01” for the first reservoir completed within a wellbore, followed by consecutively increasing numbers assigned to successively completed reservoirs. For example, a producing interval code of “S01” indicates the first reservoir completed in the well; “S02” indicates the second reservoir completed. If, however, additional perforations are added to an “S01” completion in the same reservoir, the producing interval code remains “S01” since the completion is still producing from the same reservoir or commingled situation.

The components of the producing interval code are:

<u>1st Character</u> (Indicates No. of Tubing Strings)	<u>2nd and 3rd Characters</u> (Indicates Reservoir Completed)
Borehole - <b>X</b>	01 through 99
Single - <b>S</b>	
Dual - <b>D</b>	
Triple - <b>T</b>	
Quadruple - <b>Q</b>	
Quintuple - <b>V</b>	

Use a producing interval code of “X01” when reporting only the wellbore, as in the following cases:

- Reporting an active or inactive drilling well.
- Reporting a wellbore in which all completions have been abandoned but the wellbore itself has not been abandoned (e.g., temporary abandonment).
- Reporting a wellbore that has been permanently abandoned.

Largely because of new technology, special completions and producing situations exist that require exceptional naming and numbering guidelines. In part, we address these cases by reserving and using blocks of producing interval codes for well completion identification purposes. These reserved producing interval code ranges are identified as:

<u>Producing Interval Code</u>	<u>Reserved For</u>
01-19	All “routine” producing completions not included in any of the following groups.
21-39	All completions that involve the combined production of unit and non-unit hydrocarbons in a single tubing string. (See Exhibit 8.)
41-59	All completions that cross lease/unit lines. (See Exhibit 9.)
61-79	All “capacity” completions. (See Exhibit 10.)
81-99	Unassigned.

### OCS Lease Number/Well and Completion Name

The OCS lease number is the MMS assigned identification for the lease at the targeted total depth of the well. The OCS lease number will change for wells subsequently (re)completed to another leased area.

- You select and we approve the well name (AANNN where A = an alpha character and N = a numeric character) on **Form MMS-123, Application For Permit To Drill (APD)**. You designate wells drilled from an existing platform with a platform prefix in the well name (e.g., A001, A002). The prefix also indicates whether a well is associated with a seafloor template (e.g., TA001, TA002) or whether the well is a satellite subsea completion (e.g., SS001, SS002). Otherwise, you designate wells by a number only in the well name (001,002). If the well is tied back to a subsequently installed platform, we change the name to include the platform (from 001 to A001). If more than one platform or seafloor template is to be installed in a field, it is named with the next available alpha character (e.g., B001, TB001). You may change the well name with subsequent operations when we approve a **Form MMS-124, Sundry Notices and Reports on Well**.
- We establish the well completion name (AANNNA) when we accept and process **Form MMS-125, Well Summary Report**, with similar identifying nomenclature (e.g., A001, JA002D, etc.) after the wellbore is completed. For multiple completions, you add a single alpha character to the end of the well name to distinguish the specific tubing string and productive interval (e.g., Well A001D).

### Well Name Suffix

The well name suffix is an extension to the well name; it identifies each wellbore and indicates the number of times a well has been sidetracked and a wellbore has been bypassed. You provide and we approve the well name suffix on **Form MMS-124, Sundry Notices and Reports on Well**, to each subsequent wellbore drilled.

- The well name suffix is an identifier (**AANNAANN**) with a maximum of 8 characters indicating whether the wellbore is a sidetrack or a bypass and the number of sidetracks and bypasses that have occurred.
- You will select and we will approve the alpha identifier(s) **AA** in the well name suffix to indicate whether the wellbore is a sidetrack or a bypass from the original hole or an earlier sidetrack. You will select and we will approve the numerical identifier(s) **NN** in the well name suffix sequentially such that the number(s) will indicate the number of sidetracks associated with a well and the number of bypasses associated with the original hole or sidetrack. For example, if the original hole is bypassed, the assigned well name suffix is **BP01**. If two sidetracks were drilled sequentially after the original hole, the assigned well name suffixes would be **ST01** and **ST02**. If the second sidetrack was also bypassed, the assigned well name suffix would be **ST02BP01**.
- You identify sidetracks and well deepenings to a new target by an **ST** well name suffix. For well deepenings to the original intended target, such as in the case of batch set operations, the well name suffix remains unchanged and the API number **WB** code is **not** incremented.
- You should propose revised well name suffixes previously assigned according to NTL 97-2N (e.g., **WB01**, **WB02**), with subsequent filings for other purposes on **Form MMS-124, Sundry Notices and Reports on Well**. In the Gulf of Mexico Region (GOMR), we will assign well name suffixes according to this standard to all existing wells with MMS assigned API numbers when the data are verified under the Historical Well Data Cleanup Project (refer to GOMR NTL 98-29, Addenda 1 and 2).

### Well Numbering Examples

Examples of the correct well numbering standards are demonstrated on the attached exhibits. They include:

<u>Exhibit</u>	<u>Example</u>
1	Sidetrack Well
2	Well Deepened
3	Historical Wellbore With No API Number Assigned
4	Recompleting A Well
5	Workover
6	Collapsed Tubing String
7	Tubingless Completion
8	Unit and Non-Unit Production Combined
9	Completion that Crosses Lease/Unit Line
10	Capacity Well
11	Downhole Commingling – Single Tubing String
12	Downhole Commingling – Dual Completion
13	Horizontal Well
14	Multilateral Well
15	Downhole Splitter Well

# Exhibit 1 Sidetrack Well

## Time 1

Assume:

- ▶ Two tubing strings
- ▶ Two completions
- ▶ API well No. = 177 174000000

## Time 2

Assume:

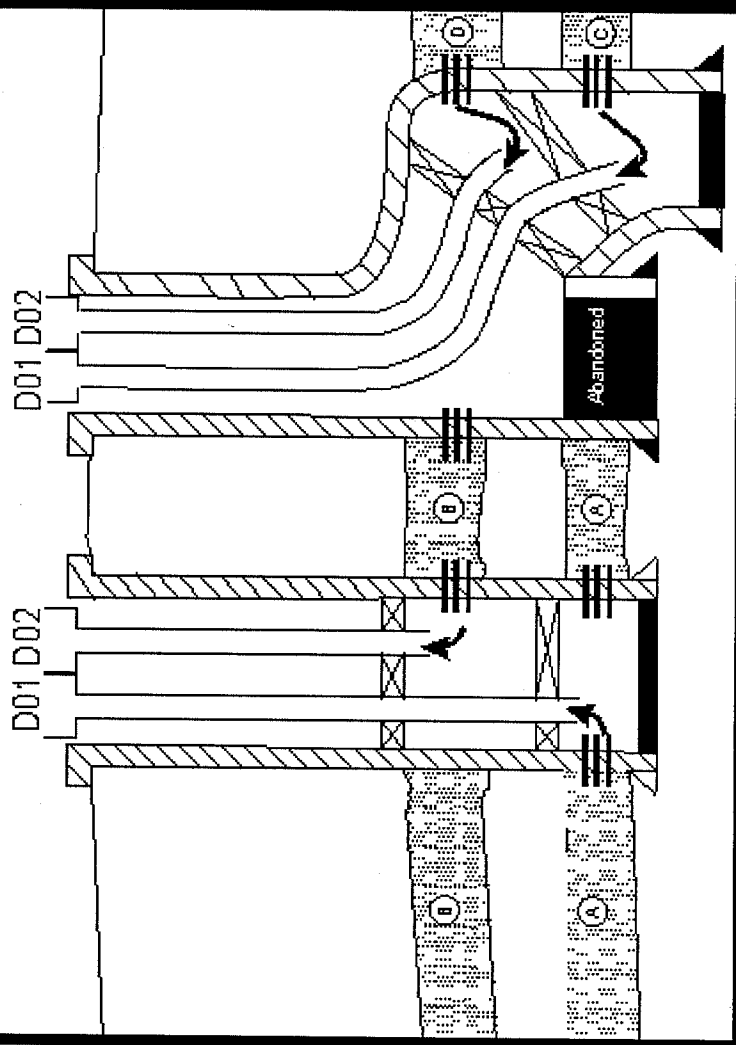
- ▶ Zones A & B in original wellbore squeezed off
- ▶ Well sidetracked & completed in new zones
- ▶ API Well No. = 177174000001

Result:

Zone	Well Name Suffix	Producing Interval Code
A	ST01	D01
B	ST01	D02

Result:

Zone	Well Name Suffix	Producing Interval Code
C	ST01	D01
D	ST01	D02



Note: Since a sidetrack creates a unique API Well No. all completions are assigned new producing interval codes independent of original wellbore.

# Exhibit 2

## Well Deepened

### Time 1

#### Assume:

- One tubing string
- One completion

#### Result

<u>Zone</u>	<u>Well Name</u>	<u>Producing Interval Code</u>
B	Suffix	S01

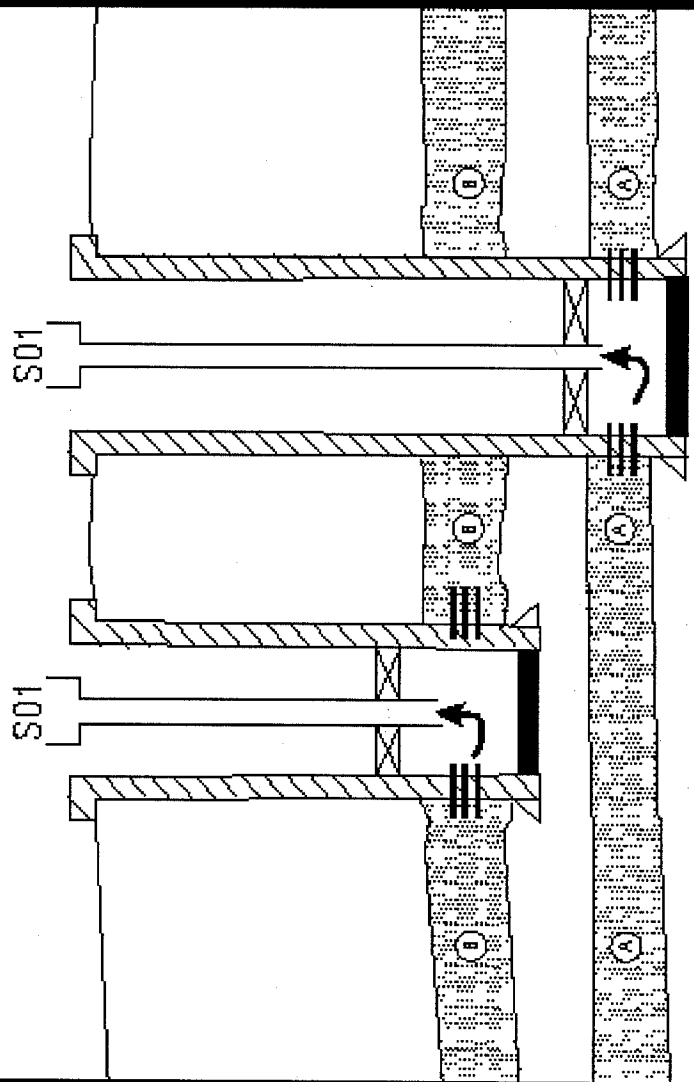
### Time 2

#### Assume:

- One tubing string
- Zone B is squeezed off
- Well is deepened & completed in Zone A

#### Result

<u>Zone</u>	<u>Well Name</u>	<u>Producing Interval Code</u>
A	Suffix	S01



Note: In this example, the well is initially completed and later deepened and recompleted in another zone. The API number WB code is incremented to 01. The producing interval code remains S01.



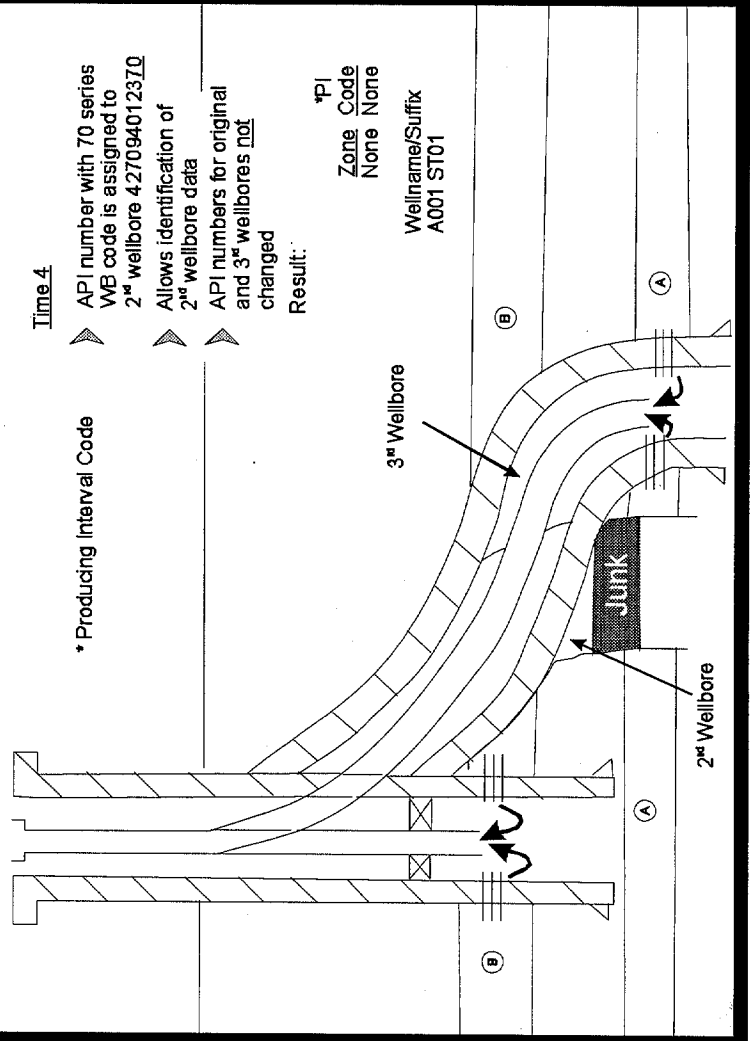
# Exhibit 3

## Historical Wellbore With No API Number Assigned

- Time 1**  
Assume:
- Original wellbore is drilled
  - API number is assigned 427094012300
  - Zone B is completed and produced
  - Well name - A001
- Time 2**  
Assume:
- 2<sup>nd</sup> wellbore is sidetracked from original hole
  - Junked section is abandoned
  - No API number is assigned
  - Wellbore is logged
  - Well name - A001ST1
- Time 3**  
Assume:
- 3<sup>rd</sup> wellbore is a bypass from 2<sup>nd</sup> wellbore
  - API number is assigned 427094012301
  - Zone A is completed and produced
  - Well name A001ST1 BP1

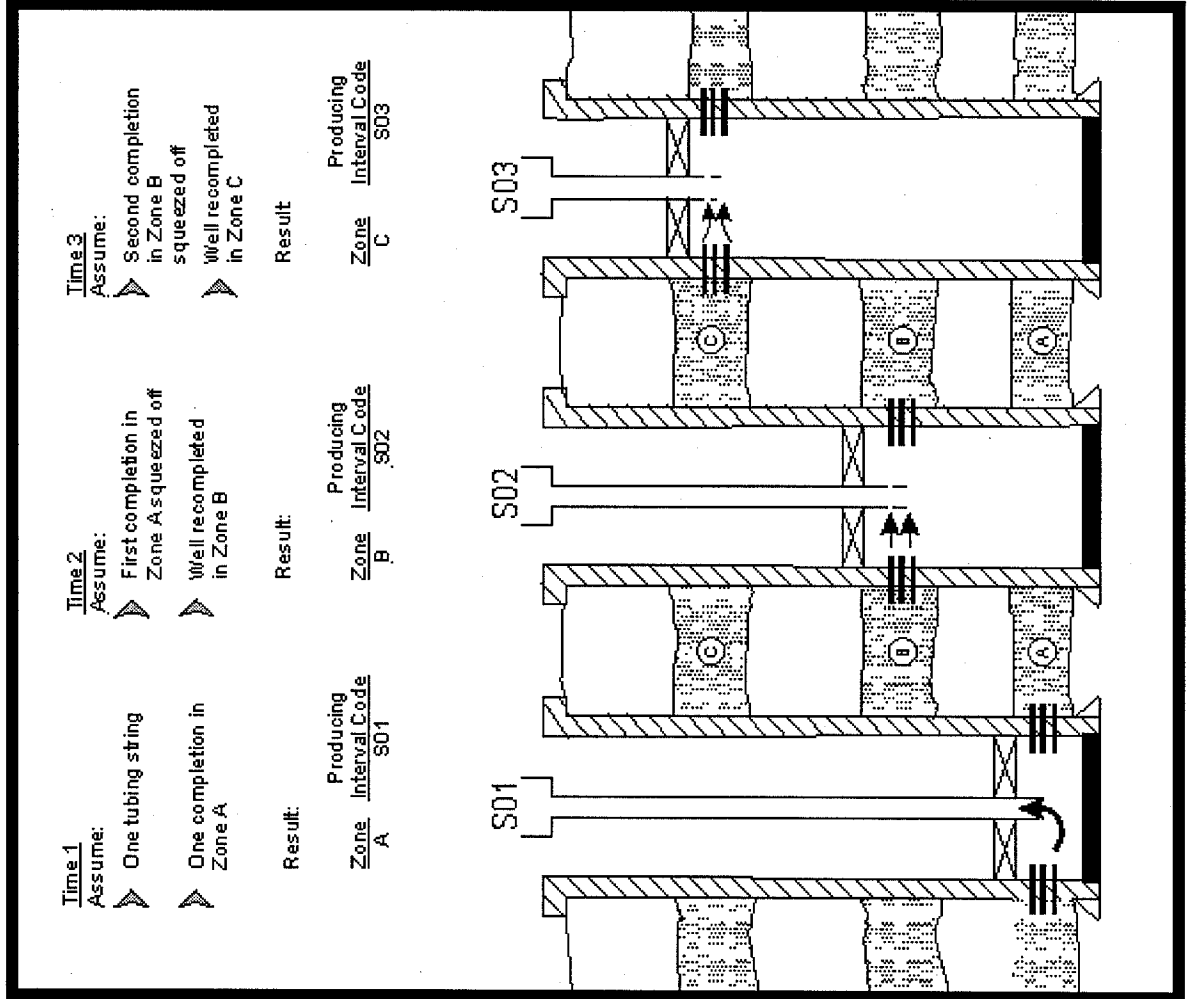
Result: Well Name Suffix ST01 Zone Code A \*PI S01

- Time 4**
- API number with 70 series WB code is assigned to 2<sup>nd</sup> wellbore 427094012370
  - Allows identification of 2<sup>nd</sup> wellbore data
  - API numbers for original and 3<sup>rd</sup> wellbores not changed
- Result: \*PI Zone Code None None Wellname/Suffix A001 ST01



Note: Historical sidetracks, bypasses, well deepenings, etc., that were not initially assigned an API number can be assigned an API number with a 70 series WB code at a later time, so that any wellbore data can be identified. API numbers already assigned will not be changed.

# Exhibit 4 Recompleting A Well

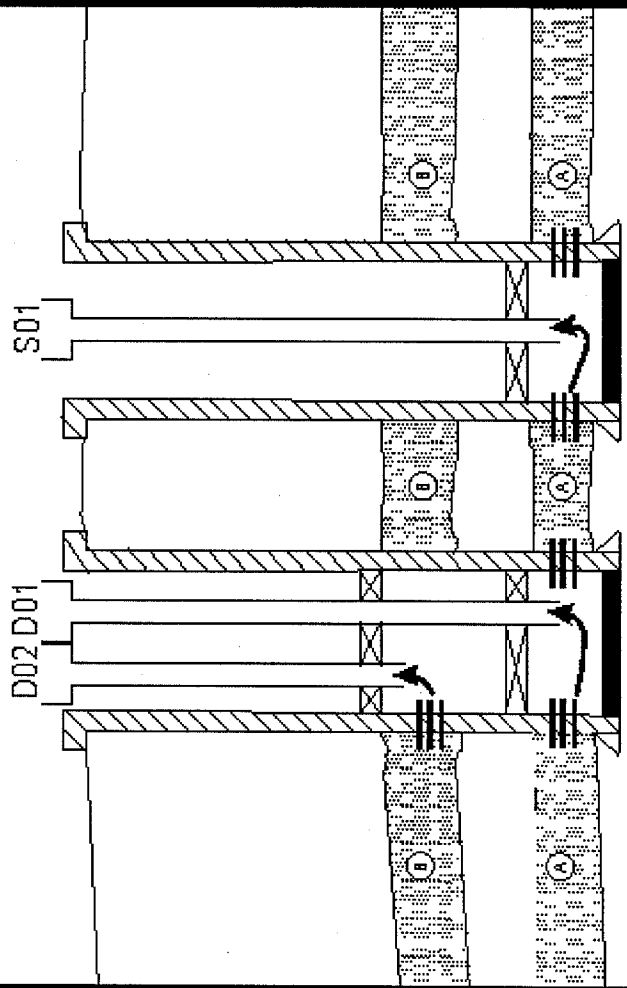


# Exhibit 5 Workover

- Time 1**  
Assume:
- ▶ Two tubing strings
  - ▶ Two completions
- Time 2**  
Assume:
- ▶ One of the tubing strings is removed during workover
  - ▶ Zone B is squeezed off

Result:

Zone	Producing Interval Code	Zone	Producing Interval Code
A	D01	A	S01
B	D02		



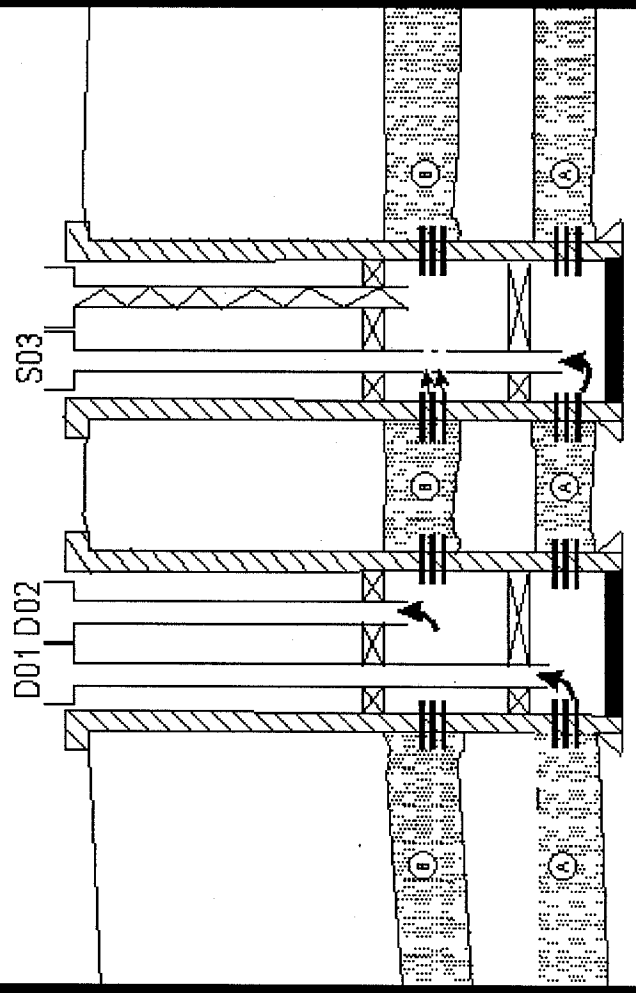
Note: The D02 completion must be reported as abandoned (status code = 15) on the OGOR-A in the same month that the S01 completion begins reporting.

# Exhibit 6 Collapsed Tubing String

**Time 1**  
Assume:  
 ▶ Two tubing strings  
 ▶ Two completions

**Time 2**  
Assume:  
 ▶ D02 tubing collapsed - no longer capable of producing to surface  
 ▶ D01 tubing recompleted in Zone B  
 ▶ Production is commingled downhole

**Result:**  
 Producing Zones: A & B  
 Interval Code: S03



Note: The D01 & D02 must be reported as completion abandoned (status code = 15) on the OGOR - A in the same month that the S03 begins reporting.

# Exhibit 7 Tubingless Completion

## Time 1

Assume:

- ▶ One completion
- ▶ Casing is used as the production string

Result:

Zone	Producing Interval/Code
B	S01

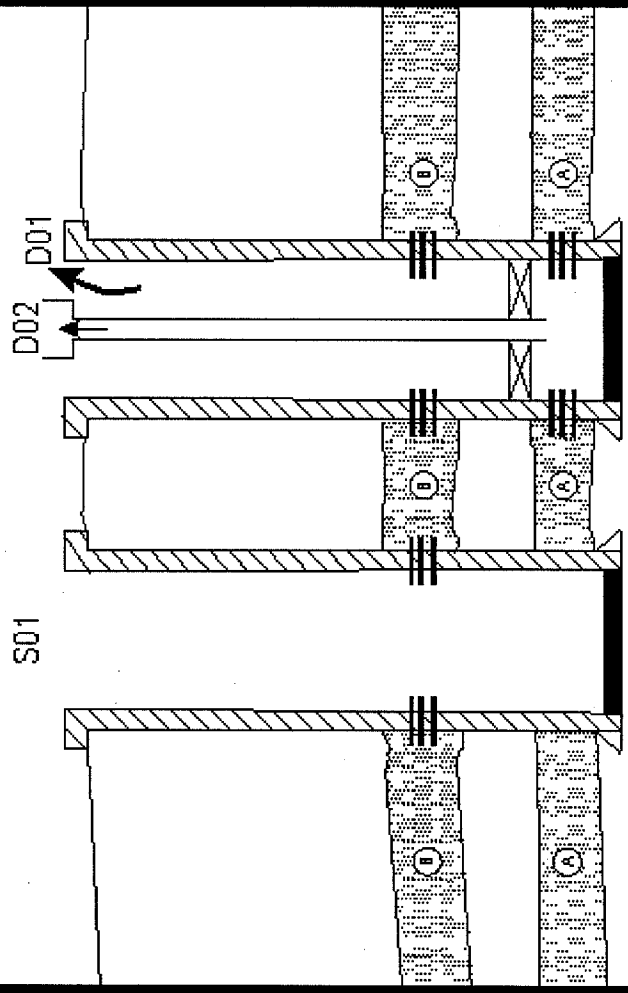
## Time 2

Assume:

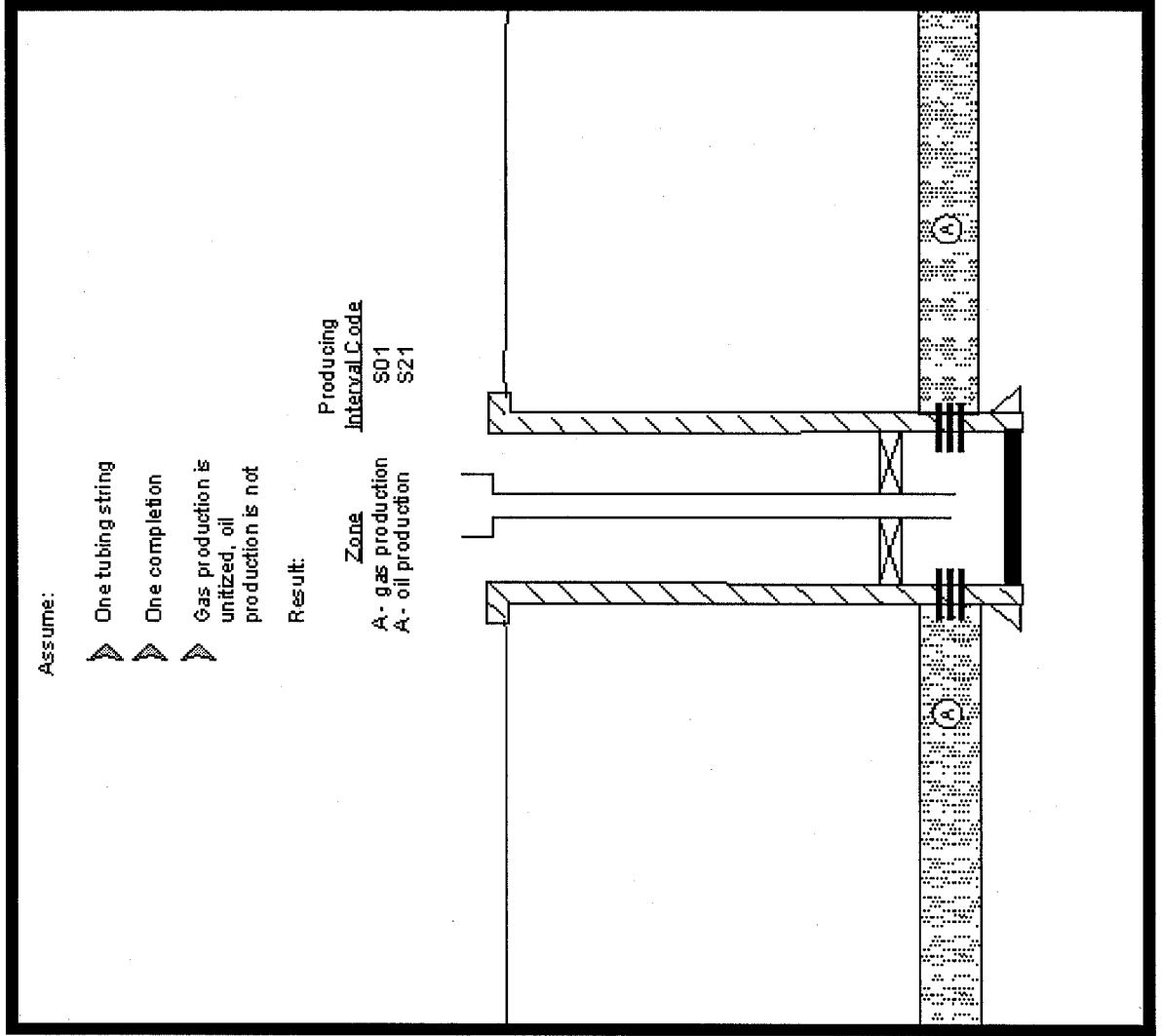
- ▶ Well recompleted
- ▶ One tubing string
- ▶ Two completions
- ▶ One interval is producing using the casing

Result:

Zone	Producing Interval/Code
B	D01
A	D02



# Exhibit 8 Unit and Non-Unit Production Combined



Note: Gas production would be reported on unit OGOR - A; oil production would be reported separately on lease OGOR - A

# Exhibit 9 Completion That Crosses Lease Line

Assume:

➤ Directional or horizontal well is completed with the perforated interval crossing a lease line.

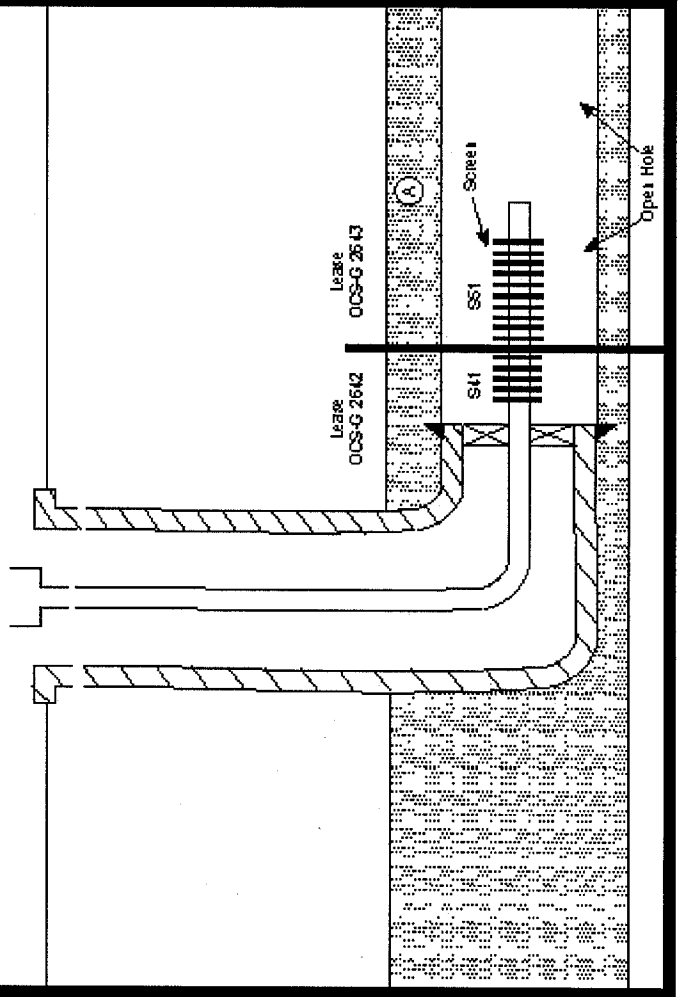
Result:

Two completion records set up, one for each lease.

API number, including WB code, and well name suffix will be the same for both records.

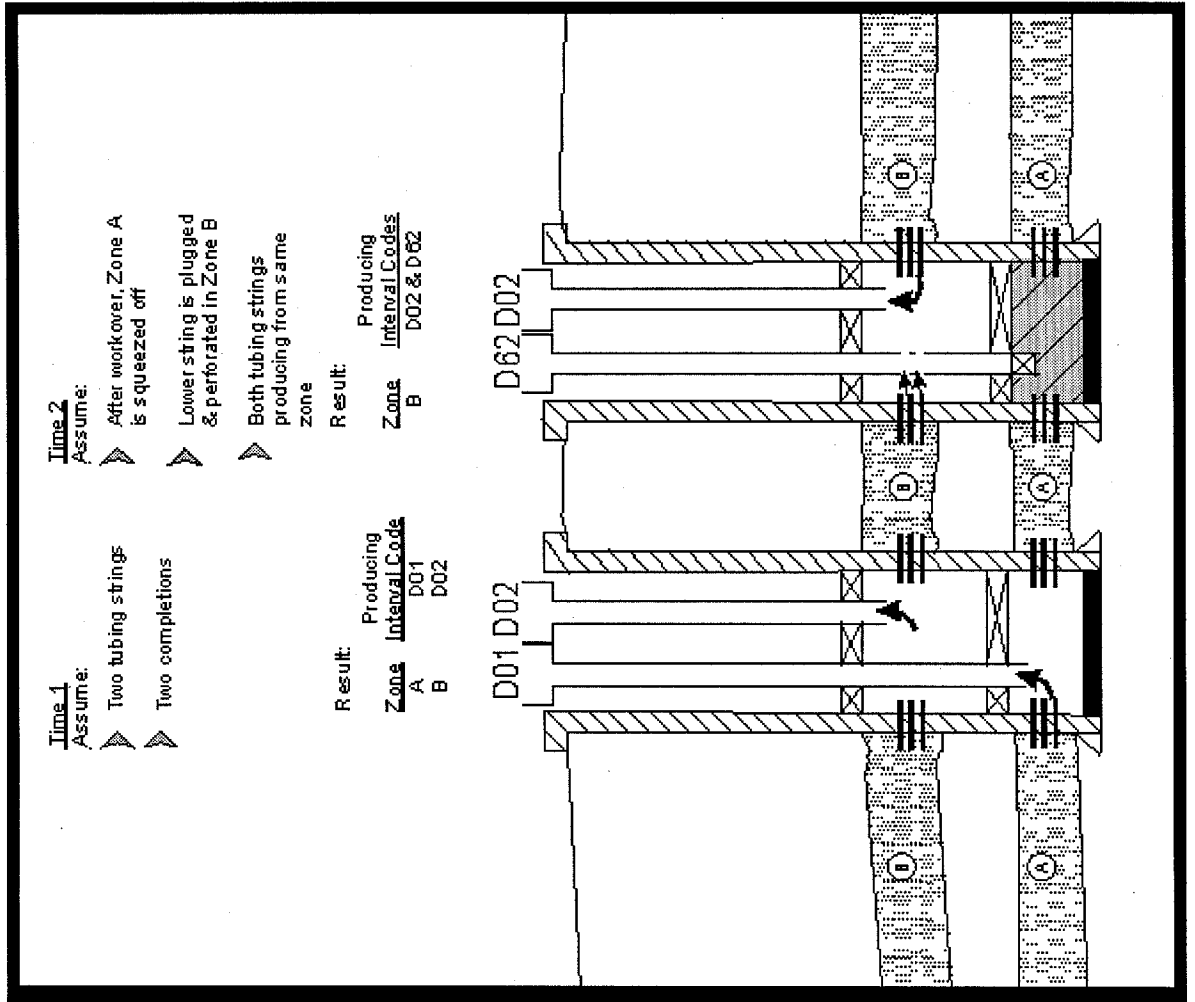
Producing interval codes will be S41 and S51.

Production and test data will be allocated to each lease based on method specified by MMS.



# Exhibit 10

## Capacity Well



Note: The D01 completion must be reported as a completion abandoned (status code 15) on the OGOR-A in the same month that the D02 and D62 completions begin reporting.



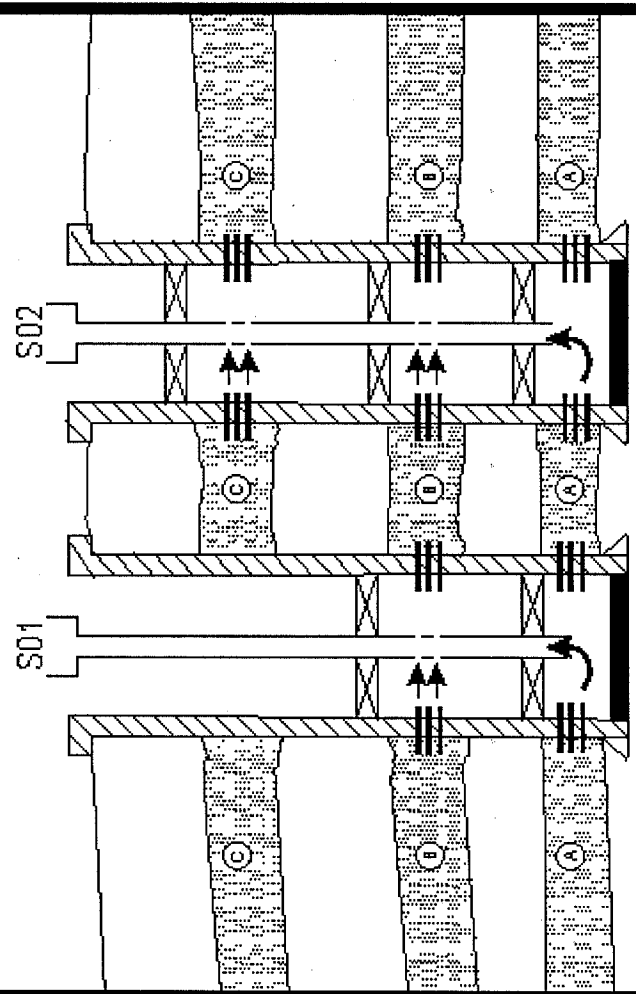
# Exhibit 11

## Downhole Commingling Single Tubing String

- Time 1**  
Assume:
- Three potential pay zones: A, B, & C
  - Zones A & B completed at same time
  - Production is commingled downhole
- Time 2**  
Assume:
- Zone C Completed
  - Production from zones A, B, & C commingled downhole

**Result:**

Producing Interval Code S01	Producing Interval Code S02
Zones: A & B	Zones: A, B, & C



Note: The S01 must be reported as a completion abandoned (status code = 15) on the OGOR - A in the same month that the S02 begins reporting.

# Exhibit 12

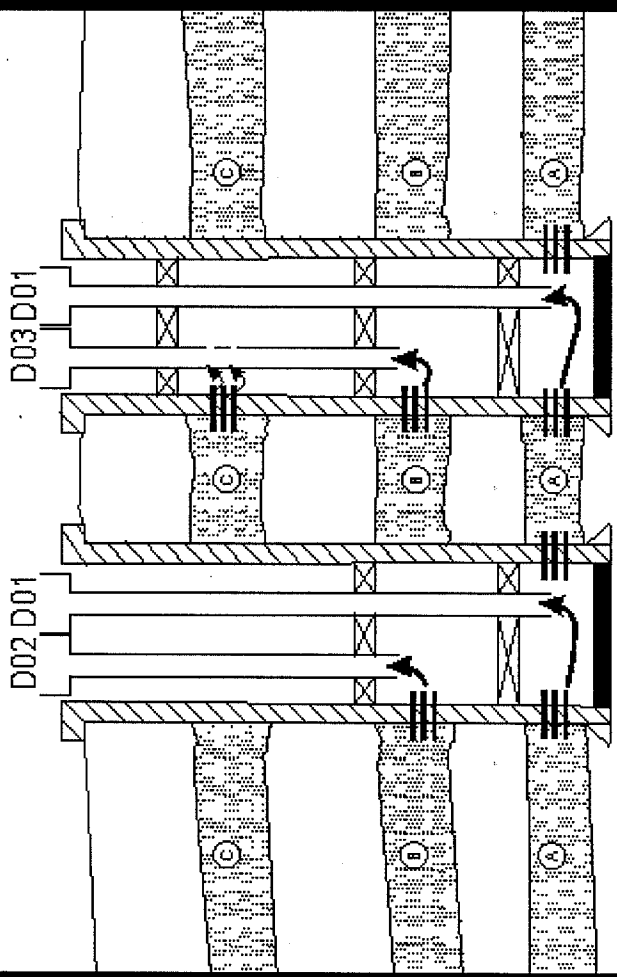
## Downhole Commingling

### Dual Completion

- Time 1  
Assume:
- ▶ Two tubing strings
  - ▶ Two completions
- Time 2  
Assume:
- ▶ Two tubing strings
  - ▶ Three completions
  - ▶ Production from upper tubing string is commingled downhole

Result:

Zone	Producing Interval Code	Zones	Producing Interval Code
A	D01	A	D01
B	D02	B & C	D03



Note: The D02 must be reported as a completion abandoned (status code = 15) on the OGOR - A in the same month that the D03 begins reporting.

# Exhibit 13

## Horizontal Well

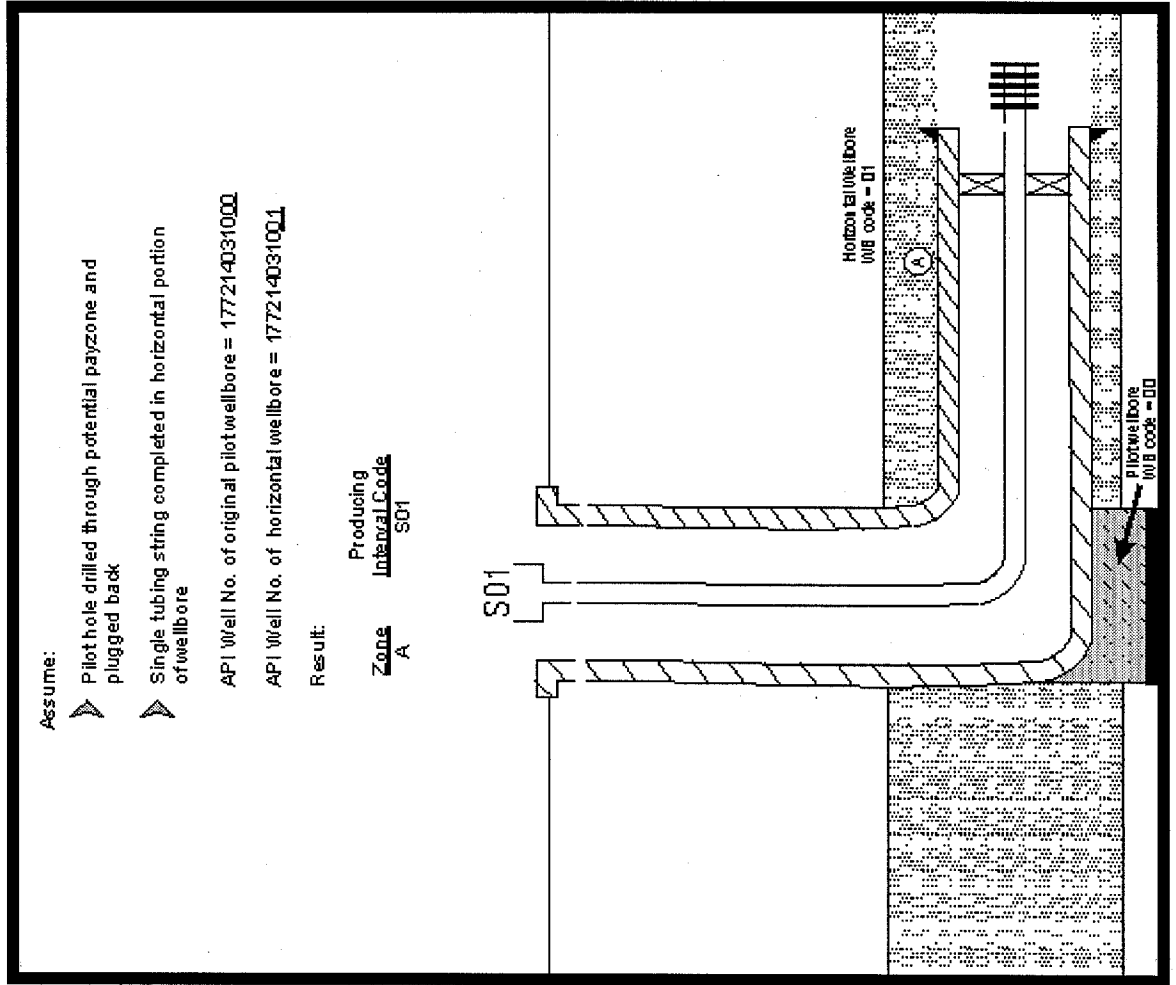
**Assume:**

- Pilot hole drilled through potential payzone and plugged back
  - Single tubing string completed in horizontal portion of wellbore
- API Well No. of original pilot wellbore = 177214031000  
 API Well No. of horizontal wellbore = 177214031001

**Result:**

Zone	Producing Interval Code
A	SD1

Note: Pilot wellbore is reported as plugged and abandoned (status code = 16) on the OGOR-A.



# Exhibit 14 Multilateral Well

**Assume:**

- Single tubing string completed in horizontal part of each lateral
- One completion in Zone A and one completion in Zone B

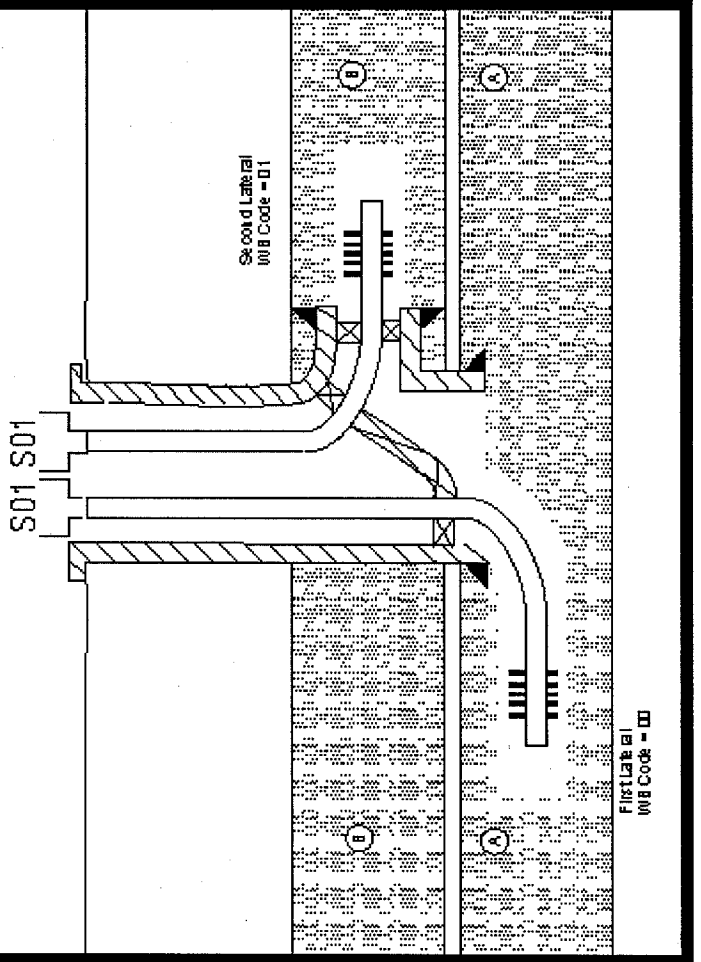
The WB code of each lateral will be numbered sequentially from the original wellbore

**Result:**

Zone	WB Code	Producing Interval Code
A in 1" lateral	00	S01
B in 2" lateral	01	S01

API Well No. of first lateral = 177254061000

API Well No. of second lateral = 177254061001



Note: Both laterals are open to production. The producing interval codes of S01 are unique to each wellbore segment.

# Exhibit 15

## Downhole Splitter Well

**Assume:**

- Single tubing string in each wellbore completed in horizontal position of well
- Since each wellbore has separate production casing & trees at surface, API Well No. of each wellbore will be numbered separately.
- WB code remains 00 for each wellbore.
- Each splitter well has a different well name (eg., A-1 and A-2).

**Result:**

API Well number of first wellbore drilled = 177244021000  
 First wellbore, Zone A - S01

API Well number of second wellbore drilled = 177244021100  
 (or next available API well number)

Second wellbore, Zone A - S01  
 1<sup>st</sup> Wellbore S01  
 2<sup>nd</sup> Wellbore S01

