CS-9 (Standard) Seismic Surveys
Revised: September 2009

1.0 PURPOSE

1.1 To be able to uniquely identify offshore seismic surveys.

1.2 To provide a basis for subsequent searches.

1.3 To allow companies to cross-reference the CDA surveys with in-house company names.

1.4 To specify how the data is to be mapped onto OIL & GAS UK P1/90

(Please also read 6.0 Background Note on page 5).

2.0 SEISMIC SURVEY NAME

The name of the seismic survey will be defined by a 10 character code where the format of the 10 characters is defined as:

CCYYSSSSSSS

- CC is a 2 character alphanumeric code for a company or contractor - See Note A
  (the full list of codes to be used is at Appendix A).
- YY is a 2 numeric year designator
- SSSSSS is a 6 character alphanumeric survey designator with leading blanks padded with zeros - See Note B.

e.g. AB97K21125 Company AB Year 1997 Contractor K Quad 211 Block 25

The CS9 Seismic Survey name is an essential attribute for the storage and retrieval of the survey data. Where any data, either new or legacy, is submitted to UKOilandGasData or to the CDA DataStore without a CS9 Survey Name the Service Provider will add an appropriate CS9 name whilst retaining the Data Owner's original name. One name will be an alias to the other.
3.0 CDA APPLICATION OF CS9 SURVEY NAME

3.1 When a seismic survey is submitted to CDA without a CS9 name CDA will create the survey name in the following manner;

<table>
<thead>
<tr>
<th>CC</th>
<th>YY</th>
<th>SS</th>
<th>SSSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>is a 2 character alphanumeric code for a company or contractor - See Note A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(the full list of codes to be used is at Appendix A).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>is a 2 numeric year designator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>is a 2 character code defining the type of survey – e.g. 2D, 3D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>is a 4 character numeric survey designator with leading blanks padded with zeros</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2 The 2 character code defining the type of survey will be applied as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2D</td>
<td>Used for 2D navigation data</td>
</tr>
<tr>
<td>3D</td>
<td>Generic name for all datasets held for a 3D acquisition survey – implies that there are more than one data type loaded to the CDA DataStore for the survey</td>
</tr>
<tr>
<td>3F</td>
<td>Used for the outline polygon</td>
</tr>
<tr>
<td>3B</td>
<td>Used for the bin grid (OIL &amp; GAS UK P6/98 format)</td>
</tr>
<tr>
<td>3S</td>
<td>Used for the 3D sail line data (OIL &amp; GAS UK P1/90 format)</td>
</tr>
</tbody>
</table>

e.g. AB963D0001 generic name for the acquisition survey  
AB963F0001 outline polygon of the extent of the acquisition survey  
AB963B0001 bin grid (P6/98) for the processed data from the acquisition survey  
AB963S0001 sail line data (P1/90) providing the shot and receiver group records for the acquisition survey.

3.3 Where there are other datasets associated with the survey, such as the processed data sets, then the two character codes will be used to define to these different products derived from the initial acquisition data.

3.4 When searching in Petrobank under Survey Name AB963D% the result will show as multiple rows with each product in the Navigation set name column.

e.g. Survey Name  Navigation Set Name  
AB973D0001  AB973F0001  
AB973D0001  AB973B0001  
AB973D0001  AB973S0001

3.5 When searching in Petrobank under Survey Name AB963F% the result will show only one survey:

e.g. Survey Name  Navigation Set Name  
AB973F0001  AB973F0001
3.6 The 4 character number will be a sequence number as each survey from the same company in the same year for the same survey type is loaded.

e.g. AB972D0001 first 2D survey from company AB in year 1997
AB972D0002 second 2D survey from company AB in year 1997
AB973D0001 first 3D survey from company AB in year 1997

3.7 When the DECC 2D seismic navigation database was loaded to the CDA DataStore the survey lines were grouped into surveys and given a CS9 survey name. To distinguish these from the surveys submitted by the Operating company DECC surveys have 1000 series numbers.

e.g. AB892D1001 first 2D survey from DECC database for company AB in year 1989

3.8 If the same survey is submitted by the operator for loading it will have a 0000 series number.

e.g. AB892D0001 first 2D survey from company AB in year 1989

N.B. There is no guarantee that the Operator supplied survey will contain the same set of lines as the DECC survey, nor that the survey name numbering will be similar. For example AB872D1001 from the DECC database may have 8 lines and be similar to AB872D0003 from an Operator supplied survey which has 7 lines.

e.g. CD952D2001 first 2D survey in 1995 submitted to UKOilandGasData by company CD.

4.0 SEISMIC LINES

4.1 The CS9 seismic line name will be 16 characters to conform to the OIL & GAS UK P1/90 format.

4.2 A key part of this standard is that the field is to be fixed length, each component must be present and must be of the requisite length.

The composition of these 16 characters will be as below

CCYYSSSSSSLLLLLV

<table>
<thead>
<tr>
<th>CC</th>
<th>is a 2 character alphanumeric code for a company or contractor - See Note A</th>
</tr>
</thead>
<tbody>
<tr>
<td>YY</td>
<td>is a 2 numeric year designator</td>
</tr>
</tbody>
</table>

(the full list of codes to be used is at Appendix A).
SSSSS is a 6 character alphanumeric survey designator with leading blanks padded with zeros - See Note B.

LLLLL is a 5 character line number and must include leading zeroes - See Note C

V is 1 character that has one of the following default values - See Note D

A is first pass
B is second pass
C is third pass
D is fourth pass
I is first infill
J is second infill
U is first undershoot
V is second undershoot
W is third undershoot

3 or 5 or 7 are used for interpolation

A company can use any other value than in the default set but must specify how it is being used.

**Two examples of how this could be used are for:**
Re-shoots - companies could designate their own suffix
Multiple parts with overlapping sections - use a suffix to distinguish
Different cubes - use suffix to distinguish.

4.3 Data Owners are encouraged point forward to adopt the CS9 standard as the means of naming both their surveys and associated lines. However for legacy data and where the data owner uses a proprietary line name then this will not be changed in the CDA DataStore or in UKOilandGasData.

4.4 It should be noted that, whereas the CS9 survey line name is suitable for conventional 2D and 3D surveys it does not allow adequate character definition to describe OBS survey line data. The data exchange format standard for this data is SPS.
5.0 NOTES

A Company / Contractor codes

CDA has based the company / contractor codes on the set promulgated by OIL & GAS UK after these were rationalised down to two letters. The list is included at Appendix A. Responsibility for maintaining these codes, allocating new ones etc. will be assumed by the DECC after the standard has been adopted by CDA.

The contact at DECC is Phil Harrison +44 (0) 300 068 6036.

Only lines and surveys with correct company codes will be accepted by CDA.

B Seismic survey designator

Each oil company can use this component in whatever way is most suitable for the specific survey; using for example quadrant/block, asset name or tranche number. e.g.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>000913</td>
<td>Quad Block 9/13</td>
</tr>
<tr>
<td>0000T6</td>
<td>Area Tranche 6</td>
</tr>
</tbody>
</table>

There are companies, e.g. Phillips, who include access entitlement information in this field. Companies are free to use whatever they wish with only one restriction, that of the field being fixed length.

C Line number

5 characters have been allocated for line number to allow for 3D shoots where the first line number is very often greater than 0, e.g. where companies are shooting a combined survey and they agree line numbers amongst themselves.

In this instance the first line number may be 7000.

D Character code

The default set of values for this code have been chosen from values that exist within the OIL & GAS UK P1/90 specification.

**Mapping to OIL & GAS UK formats**

The mapping onto OIL & GAS UK P1/90 has taken account of various ways that different companies will handle the data. This has resulted in a small duplication but has allowed a mapping to be developed that is acceptable to all. Line number has been separated into components as below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCYYSSSSSLLLLLV</td>
<td>CDA line name</td>
</tr>
<tr>
<td>CCYY</td>
<td>Index number</td>
</tr>
<tr>
<td>CCYYSSSSS</td>
<td>Survey name</td>
</tr>
<tr>
<td>SSSSSSSLLLVL</td>
<td>Long line number</td>
</tr>
<tr>
<td>LLLLLLV</td>
<td>Short line number</td>
</tr>
</tbody>
</table>

These components MUST BE mapped onto OIL & GAS UK P2/94 (or P2/91), P1/90 and Binning Grid Exchange Formats as follows: FORMAT = P2/94 or P2/91

**Card Position Notes**

| CDA line name | H0000 29-44 and E1000 07-22 |

6.0 BACKGROUND NOTE

6.1 There is no intention to force companies in CDA to use this standard internally only that there should be a common method of reporting these items to the central database (UKOilandGasData). CDA recognise that for some time most companies will have to continue to use their own "old" naming standards and will maintain look-up tables. Furthermore it is recognised that to attempt to rename legacy data would be extremely costly compared with any benefits and this will not be done.

6.2 The standard has been developed by a small group of companies chaired by DECC. The companies represented covered large and small companies to ensure an even approach. Whilst the result is necessarily a compromise it does represent the consensus of views. Most companies have their own internal standards but all accepted the need for change for the common good.

6.3 The notes in section 5 explain the standard in more detail, provide a short explanation of reasons for the choice and specify the mappings onto OIL & GAS UK P1/90.