SPE Table Formatting Guidelines

1. Table Font
    a. Font: 8-point Arial or Helvetica.
2. Table Size
    a. Table sizes should be chosen with readability in mind.
    b. If possible, tables should be designed to occupy either the width of one column (3.33 in./20 pi) or the full width of two columns (6.83 in./41 pi).
    c. If either of the preferred one- and two-column widths would make a table look awkward or difficult to read, a width of 5 in. (30 pi) may be used instead.
    d. Extra-large tables, especially those meant to be viewed in landscape mode, may require special formatting on a case-by-case basis.
3. Table Caption (Title)
    a. Should be in sentence case and left-aligned, and should not be made bold. The caption should end with a period.
    b. Spacing for the title row is Before: 5 pt /After: 4 pt
    c. An em dash (—) is always used between the table number and the table title.
4. Column Headings
    a. Should be center-bottom or left-bottom aligned and in Title Case.
        i. If the column contents need to be left-aligned for readability, the column header should also be left-bottom aligned. Otherwise, center both column header and column contents.
    b. Spacing for the column header rows is Before: 3 pt /After: 2 pt
    c. Units or secondary aspects should be in parentheses (%, in., md)
        i. Do not change units or secondary aspects to Title Case.
    d. This formatting applies to all column header rows, no matter how many of them there are.
5. Row Headings (first table column)
    a. Should have only the first word and any proper nouns capitalized. Row headings may be left- or center-aligned.
    b. If you cannot make left-aligned text fit on one line, you will need to slightly indent the second line of text.
6. Rows
    a. Should be center-top aligned, unless center-center aligned would make the table easier to read.
    b. Spacing for regular rows is Before: 2 pt/After: 1 pt
7. Footnote
    a. Always left-top aligned, 6.5-pt font, in a single (merged) row between the last row of content and the title row at the bottom of the table.
    b. Spacing for the merged footnote row is Before: 2 pt/After: 1 pt
    c. The SPE standard format for footnotes is *,**,†,and ††.
    For a table which has more than four footnotes, use lower-case letters instead (^{a}, ^{b}, ^{c}, ^{d}, ^{e}).

8. Borders
    a. SPE tables use internal borders only to differentiate column headers from content.
        i. If an upper-level column header covers multiple columns, enclose that set of columns in a box.
        ii. The footnote row may have its own upper border if it needs to be separated from nearby content to prevent confusion.
9. Other Formatting
    a. Use an en dash (–) to replace a hyphen/minus sign (-) for minus signs and negative numbers, to separate ranges, and when indicating no data.
    b. Abbreviations are to be avoided, although sometimes they are necessary for space purposes.
        i. Common acceptable abbreviations include in., ft, mm, cm, m, L, lbm, lbf
        ii. & and @ must be written out as “and” and “at.”
10. Tips and Tricks
    a. If MathType or other software has been used to produce simple expressions (C_{max}, x^{a-b}), replace them with regular text/symbols to clean up the table’s row spacing.
    b. If the row spacing in your table still looks wrong after you have set it on the Page Layout tab: Select all rows in the table. Right-click and go to Table Properties, then click on the Row tab. If the box beside Specify height is checked, uncheck it, then click OK.
    c. If you cannot make content fit properly in a cell *and* you have no other options, right-click in the cell (or select the range of affected cells), go to Table Properties, and click on the Cell tab, then click the Options button. Uncheck the box next to “Same as the whole table,” reduce the Left and Right cell margins from 0.08 in. to 0.05 in., and click OK. Do not under any circumstances reduce the cell margins to 0.

Sample Tables

Examples: 3.33 in. (20pi) wide

Layer	Porosity	Permeability	Completion Interval
1	0.3080	725 md	2.0 m
2	0.2880	1,591 md	17.8 m
3	0.3240	3,093 md	28.6 m

Table 1—Completion layer properties for Well B.

	Porosity (%)	Permeability (D)
Grade 6 beads	42	259
Grade 9 beads	40	104
Grade 11 beads	38	10

Table 2—Porosities and permeabilities of the different bead sizes.

Cell dimensions (L×H×D)	69.8× 21.7×3.5 cm
Initial pressure	847 kPa
Initial temperature	20°C
Cell permeability	1135×10^{-12} m^2
Cell porosity	0.391
Oil viscosity	10000 mPa.s at 20°C
Oil density	979 kg/m^3

Table 3—Experimental parameters.

Probabilistic Values From CDF		Parameter Sets Corresponding to t_M Values			
Value	t_M (year)	Q_∞ (Bbbl)	t_M (year)	S_L (year)	S_oS
P10	2009.1	2543.3	2009.1	19.5	1.817
P50	2013.5	2543.3	2013.5	19.9	1.829
P90	2018.3	2543.3	2018.3	20.5	1.839
Mean	2013.6	2543.3	2013.6	19.9	1.830
P10	2014.6	2900.8	2014.6	20.2	1.8199
P50	2018.8	2900.8	2018.8	20.6	1.8303
P90	2023.4	2900.8	2023.4	21.4	1.8365
Mean	2018.9	2900.8	2018.9	20.6	1.8306

Table 4—Parameter sets for Q_∞ = 2543.3 and Q_∞ = 2900.8 bbl for Hubbert model of world oil production data through 2008 (R=8).

Examples: 5 in. (30pi) wide

Symbol	Value	Description
F_a	324.8	Friction parameter in annulus
h_{tvd}	9587	Total vertical depth
h_{rb}	2150	Vertical depth to seabed
r_{ri}	0.4509	Riser inner radius
r_{do}	0.127	Drillstring outer radius
c_1	10	Parameter related to drillstring velocity
c_2	25	Parameter related to drillstring acceleration
p_0	1	Atmospheric pressure (bar)
F_r	0.003	Friction parameter in the riser
$\overline{\rho}_a$	1.7705	Average density in the annulus
$\overline{\rho}_r$	1.7470	Average density in the riser

Table 5—Parameter estimates for MPC model in Eqs. 17–20 (values are based on well information and step responses).

Benefits	CLLNG	CSF	CCSL	CLPG
(a) Reduced storage requirements	Y	Y	Y	Y
(b) Improve delivery to storage	N	Y	N	N
(c) Enhanced export growth potential	Y	Y	Y	Y
(d) Efficient incremental expansion	Y	Y	Y	Y
(e) Reduced stranded costs	Y	Y	Y	Y
(f) Improved maintenance planning	Y	Y	Y	Y
(g) Enhanced response to upsets	Y	Y	Y	Y
(h) Improved capability to optimize fleets	Y	N	N	N
(i) Reduced port congestion	N	N	Y	N

Key: Y = Benefit for specific common facility; N = Little or no benefit for a specific common facility

Table 6—Summary of specific common facility benefits.

Examples: 6.83 in. (41pi) wide

	RI		IPA Concentration (%)		Water Concentration (%)		Cyclohexene Concentration (%)	
IFT (mN/m)	Gas	Oil	Gas	Oil	Gas	Oil	Gas	Oil
24.20	1.44737	1.33388	0.00	0.00	0.00	100.00	100.00	0.00
6.90	1.44517	1.35204	1.04	27.04	0	72.70	82	0.27
0.60	1.41783	1.36408	33.49	43.08	2.51	53.54	64.01	3.37
0.03	1.39930	1.37200	50.06	50.07	11.51	41.59	38.43	8.34

Table 7—Concentrations by volume of isopropyl alcohol, water, and cyclohexene in the equilibrated phases used for the determination of relative permeability as a function of IFT.

				Minimum Miscibility Pressure (MPa)						
				Experimental			Calculation		Deviation From VIT (%)	
Case	Oil	Gas	Temp. (°C)	VIT	Slim Tube	Rising-Bubble	Analytical	EOS	Analytical	Slim Tube
1	RKR live oil	51 mol% C_{2+}	87	14.8[d]	–	–	16.2[h]	15.6[i]	9.5	–
2	RKR live oil	52.5 mol% C_{2+}	87	14.0[d]	–	–	15.2[h]	16.4[i]	8.6	–
3	RKR stock tank oil [b]	Ethane	87	18.3[d]	11.2[d]	–	–	–	–	–38.8
4	RKR stock tank oil [b]	Propane	87	3.9[d]	3.0[d]	–	–	–	–	–23.1
5	Terra Nova live oil	9.56 mol% C_{2+}	96	62.8[e]	–	–	74.3[h]	56.2[i]	18.3	–
6	Terra Nova live oil	21.4 mol% C_{2+}	96	57.8[e]	–	–	67.8[h]	54.8[i]	17.3	–
7	Terra Nova live oil	29.4 mol% C_{2+}	96	31.8[e]	–	–	35.0[h]	44.4[i]	10.1	–
8	Terra Nova live oil	32.3 mol% C_{2+}	96	30.0[e]	29.3[e]	35.9–36.2[e]	–	36.0[i]	–	–2.3
9	Gilwood stock tank oil	Ethane	60	7.5[e]	7.2[d]	–	–	–	–	–4.0
10	Gilwood stock tank oil	Propane	60	2.82[e]	3.1[d]	–	–	–	–	9.9
11	*n*-decane	CO_2	38	8.0[a]	8.7[c]	8.9[c]	–	7.6[j]	–	8.7
12	Live decane	CO_2	71	12.25[a]	11.7[f]	–	11.7[g]	13.4[j]	–4.5	–4.5

[a] indicates the VIT miscibilities measured in this study.
[b] The relatively large deviations observed between slim tube and VIT for RKR STO is due to high asphaltenic nature of this crude oil.
[c] Elsharkawy et al. 1996
[d] Rao 1997
[e] Rao and Lee 2003
[f] Metcalfe and Yarborough 1979
[g] Monroe et al. 1990; Orr et al. 1993
[h] Esmaeilzadeh and Roshanfekr 2006
[i] Ayirala et al. 2003
[j] Ayirala and Rao 2007

Table 8—Comparison of VIT miscibilities with other experimental techniques and calculation approaches.