Palaeofluid record in Tertiary sandstones in the Faroese region

Report on fluid inclusion data for samples of sandstone

Wells 6004-12-1, 6004-16-1, 6004-17-1, 6005-15-1

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Summary

The key observations from the fluid inclusion data are:

(i) Progressively increasing temperature recorded in successive cements (feldspar, then quartz, then calcite);

(ii) Anomalously high temperatures of cementation for a sedimentary basin; and

(iii) Completion of cementation before the main oil charge.

The combined implication of these observations is that the oil charge occurred in rocks that had experienced, and probably were still experiencing, a temperature regime higher than is normal for oil charge. Note that the reservoir temperature may be different from the source rock temperature, but in this region the source rock temperature may be even hotter.

The data is consistent with measurements on the UK Atlantic Margin that indicate elevated temperatures in Tertiary sandstone reservoirs, attributed to focussed hot fluid flow.

Introduction

The objective of the project was to determine the distribution, nature and palaeotemperature of palaeofluids in the Faroese region in order to advance the modelling of thermal history and improve our understanding of fluid migration and reservoir cementation throughout the area. This contributes to our understanding of both regional geology and the hydrocarbon system in the region.

Previous proprietary and non-proprietary fluid inclusion projects by the PI have identified the passage of a hot fluid pulse through sedimentary basins on the Atlantic Seaboard of NW Europe and in pilot studies in Greenland. The hot fluid pulse is recorded particularly in Tertiary rocks, even where the record is absent from the underlying strata. This has significant consequences for thermal modelling, cementation of reservoir sandstones, and oil migration.

The project determined fluid inclusion data for the first 4 Faroese wells (Fig. 1), and thereby assesses the nature and palaeotemperature of palaeofluids in the Faroese wells. This includes measurement of palaeotemperature and palaeosalinity in aqueous inclusions, and identification of hydrocarbon inclusions.

Samples

The following samples of sandstone were examined (see distribution in Figures 2 to 5).

sample	***well***	***depth (m)***
f1.	6004-17-1	3741-3750
f2.	6004-17-1	3720-3729
f3.	6004-17-1	3789-3801
f4.*	6004-17-1	3300-3310
f5.	6004-17-1	3801-3810
f6.	6005-15-1	3981-3990
f7.	6005-15-1	3939-3948
f8.	6005-15-1	2080-2090
f9.	6005-15-1	3999-4008
f10.	6005-15-1	3483-3492
f11.	6004-16-1	3449-3458
f12.	6004-16-1	3238-3247
f13.	6004-12-1	2400-2409
f14.	6004-12-1	3371-3380
f15.	6004-12-1	3701-3710
f16.	6004-12-1	3971-3980
f17.	6004-16-1	2957-2968
f18.	6004-16-1	3110-3119
f19.	6004-16-1	3500-3509
f20.	6004-16-1	3569-3578
f21.	6004-16-1	2984-2993
f22.	6004-17-1	3230-3240
f23.	6005-15-1	3209-3219
f24.	6005-15-1	3699-3710
f25.	6004-12-1	2568-2677
f26.	6004-12-1	2715-2724
f27.	6004-12-1	3572-3581
f28.	6004-12-1	3851-3860

f29.	6004-12-1	3869-3878
f30.	6004-12-1	3950-3959
f31.	6004-12-1	4409-4420
f32.*	6004-16-1	2639-2648
f33.*	6004-16-1	3251-3260
f34.*	6004-16-1	3320-3329
f35.	6004-16-1	3482-3491
f36.	6005-15-1	3960-3969
f37.	6004-12-1	4481-4490
f38.	6004-12-1	2724-2733
f39.	6004-17-1	3750-3760
f40.*	6004-17-1	3780-3789
f41.	6004-17-1	2410-2420
f42.	6004-17-1	2620-2630
f43.	6005-15-1	2841-2851
f44.	6005-15-1	3198-3209
f45.	6005-15-1	3930-3939
f46.	6005-15-1	3711-3720
f47.	6004-17-1	3410-3420
f48.	6005-15-1	2851-2861
f49.*	6004-16-1	3581-3590
f50.*	6004-17-1	3759-3768

- No data obtainable because the grain size was too small or the cement was too dark to allow adequate light transmission.

Geological Setting

The geology of the Faroe-Shetland region has been discussed by numerous authors, including Ebdon et al. (1995), Dean et al. (1999) and Lamers & Carmichael (1999). Most of the region is floored by half-graben rift sequences of Permo-Triassic continental clastic sediments deposited upon crystalline Caledonian basement. A thin sequence of Early Jurassic sediments reflects a transition to a marine environment. Renewed rifting occurred in the Late Jurassic-Early Cretaceous, resulting in marine sedimentation, including deposition of organic-rich shales and localized sandstone bodies. This sedimentation was followed by a Cretaceous (Turonian) episode of inversion and erosion. Late Cretaceous rifting caused major normal faulting and deposition of thick marine shales. Extensive volcanic activity before separation of the Faroese Plateau from Greenland was preceded by regional uplift, involving subaerial exposure and erosion of older rocks. There was a major flux of sand-rich sediment into the Judd Basin during the Paleocene. The first 4 wells in the Faroese region are in the Judd Basin, and record thick Paleocene sands (Ziska and Andersen 2005). They are the deposits of slope and basin floor fan environments. The subsidence that allowed this was probably rift-related (Dean et al., 1999). Provenance studies indicate that the sands were derived from both the East Greenland margin to the west and the Shetland Platform to the east (Jolley et al., 2005). Some local derivation from uplifted structures is also possible (Ziska and Andersen, 2005). The Faroese continental shelf was then largely covered by flood basalts (Ellis et al., 2002). Continued subsidence saw the deposition of Eocene deep water sandy sediment in UK waters (Davies et al., 2004), which may extend into Faroese waters.

Previous Studies

Fluid inclusion studies are not published for the Faroese wells. Data *is* published for Paleocene sands, and older rocks, in the West of Shetland region (Parnell et al., 1999, 2005; Wycherley et al., 2003). Significant aspects of the data are:

(i) Most of the fluid inclusion record is in quartz grains and quartz cements.
(ii) The temperature data can vary considerably, from well to well.
(iii) The presence or absence of hydrocarbon inclusions also varies from well to well. They are absent in some wells.
(iv) Some wells show inclusions trapped at temperatures anomalously high (>130 ºC) for a sedimentary basin.

A pre-study investigation showed that although the Faroese sandstones have only limited cement, enough quartz cement exists to obtain a fluid inclusion record.

Data measurement

43 out of 50 samples were adequate for the measurement of inclusions. About twenty measurements of homogenization temperatures were made in each sample. The homogenization temperature (temperature at which inclusion liquid and vapour bubble combine to a single phase upon heating) approximates to the temperature of fluid entrapment. The degree of fill of the liquid component was measured during standard charts of Roedder (1984). The largest inclusions were also subject to freezing, in order to determine ice melting temperatures from which salinities could be determined, as increasing salinity causes progressive depression of the freezing point. The salinities were estimated from the ice melting data using the methods of Bodnar (1993). Freezing determinations were made before heating was carried out, to avoid any effects of inclusion stretching. The general methodology is discussed further by Roedder (1984) and Shepherd et al. (1985).

All measurements were made on doubly polished wafers (100 micron thick sections) using a Linkam THM600 Heating-Freezing stage on an Olympus BH-2 microscope, using a liquid nitrogen cooling supply. Organic chemicals of known melting point were used as calibration standards (standards summarized in Shepherd et al., 1985). Autofluorescence of the fluid inclusions was sought under ultraviolet light (illumination source 435 nm), using a Nikon Eclipse 600 microscope with a UV-2A filter block (excitation 330-380 nm, barrier filter 420 nm, dichroic mirror 400 nm), as an indicator of oil inclusions. Images were captured using Leica DC 200 computer software and a digital camera.

Paragenesis

There are three cements of significance to fluid inclusion studies: quartz, feldspar and calcite (Plates 1,2). The samples in well 15-1 only exhibit quartz cement, but the other three wells exhibit all three cements, albeit feldspar and calcite can be in limited quantity. Feldspar is rare in well 16-1 and calcite is sparse in well 17-1. There is a consistent paragenesis, of feldspar followed by quartz, followed by calcite. This is a fairly common mineral paragenesis for cements in sandstones.

Fluid inclusions

All of the inclusions measured were primary inclusions, i.e. inclusions trapped during precipitation of the host cement, as opposed to secondary inclusions trapped in cross-cutting healed microfractures. Almost all secondary inclusions observed cut detrital grains but do not cut the mineral cements, so may have been inherited from the pre-Tertiary history of the grains and thus are not pertinent to the project.

Data

The detailed data are supplied in Appendix 1. Cross-plots of salinity against homogenization temperature for each well are given in Figures 6, 7, 8 and 9. Most samples yielded data, excepting those highlighted above.

Homogenization temperatures

The temperature ranges (ºC) for the three cement phases, summarized from the cross-plots 5 to 8, and omitting isolated outliers are:

	Feldspar	Quartz	Calcite
6004/12-1	80-105	120-180	150-180
6004/16-1	90-115	140-180	160-185
6004/17-1	70-125	110-155	155-165
6005-15-1	------	115-160	-----

Depth trends

In the case of the Faroes wells, there is no correlation of fluid inclusion homogenization temperature with depth (Fig. 10). On the contrary, the temperature data for a given mineral has a limited range. As a general rule, in wells which have a thickness great enough to exhibit significant temperature changes (20+ ºC) down-well, it is *not* normal to see correlations of homogenization temperature with depth. This is because cementation is normally temperature-controlled, so affects different levels of a succession as they enter the relevant temperature window. Thus the temperature record from fluid inclusions differs from that of fission track analysis or vitrinite

reflectance, as it reflects cementation temperature rather than maximum temperature.

However, although the Faroese data show the normal independence of depth, the temperature values are relatively high. As a frame of reference, most inclusions in quartz cements in sandstones yield homogenization temperatures in the range 90-130 ºC (Worden & Morad 2000). The Faroese quartz appears to have been precipitated at up to 50 ºC higher temperature than this range. Data from the North Sea (Walderhaug 1994), plotted in Figure 11 for comparison, is also typically lower. The temperature range for calcite is also higher than normal. The temperature range for feldspar is normal.

The progressively increasing temperatures recorded from successive cements (feldspar, quartz, calcite) indicates either progressive burial and/or of steadily elevating temperature. In some sequences elsewhere, late cements yield low temperatures due to precipitation after uplift, but there is no evidence of this in the Faroese wells.

Oil inclusions

Only two samples contain oil inclusions, in quartz cement, in 6004-12-1 depth 3971m and 6004-16-1 depth 3238m. This might seem surprising, as several of the samples were from oil-stained intervals. However, oil inclusions indicate the presence of oil during cementation, while oil staining indicates the presence of oil after the last cement was precipitated. The implication is that the oil charge in the Faroese sandstones was largely post-cementation. This is in contrast to the timing of oil charge in Paleocene sandstones in some UK West of Shetland wells where oil inclusions in quartz cements indicate that the charge had already commenced by the time cementation occurred (Parnell et al., 2005).

No hydrocarbon inclusions were observed in the healed microfractures cutting the detrital grains.

Other fluid inclusion studies in the North Atlantic region have observed oil inclusions to be common, including in the Paleocene-Cretaceous-Jurassic of the West of Shetland region (Parnell et al., 1999, 2005), the Paleocene-Cretaceous of Kangerlussuaq, SE Greenland (Jonk et al., 2005), and the Jurassic of offshore Norway (Walderhaug, 1994). However, in several other case studies undertaken in this laboratory, sandstone samples with bitumen/heavy oil in the pore space have no oil within fluid inclusions, reflecting that it is common for cementation to pre-date oil charge.

Salinities

The salinity range is from 0 to 10 wt.% equivalent NaCl. As a frame of reference, fluid inclusions in quartz cements in the North Sea show a range from 0 to 25 wt.% equivalent NaCl (Aplin et al., 1993), and in the northern North Sea most values are in the range 10 to 25 wt.% equivalent NaCl. Thus the Faroese salinities are relatively low. However these values are comparable with salinities from several wells in the Tertiary succession on the UK Atlantic Margin (Parnell et al., 1999).

Synthesis (as Summary)

The key observations from the fluid inclusion data are:

(iv) Progressively increasing temperature recorded in successive cements (feldspar, then quartz, then calcite);
(v) Anomalously high temperatures of cementation for a sedimentary basin; and
(vi) Completion of cementation before the main oil charge.

The combined implication of these observations is that the oil charge occurred in rocks that had experienced, and probably were still experiencing, a temperature regime higher than is normal for oil charge. Note that the reservoir temperature may be different from the source rock temperature, but in this region the source rock temperature may be even hotter.

The data is consistent with measurements on the UK Atlantic Margin that indicate elevated temperatures in Tertiary sandstone reservoirs, attributed to focussed hot fluid flow (Parnell et al., 2005; Scotchman et al., 2006).

Acknowledgement

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Figures

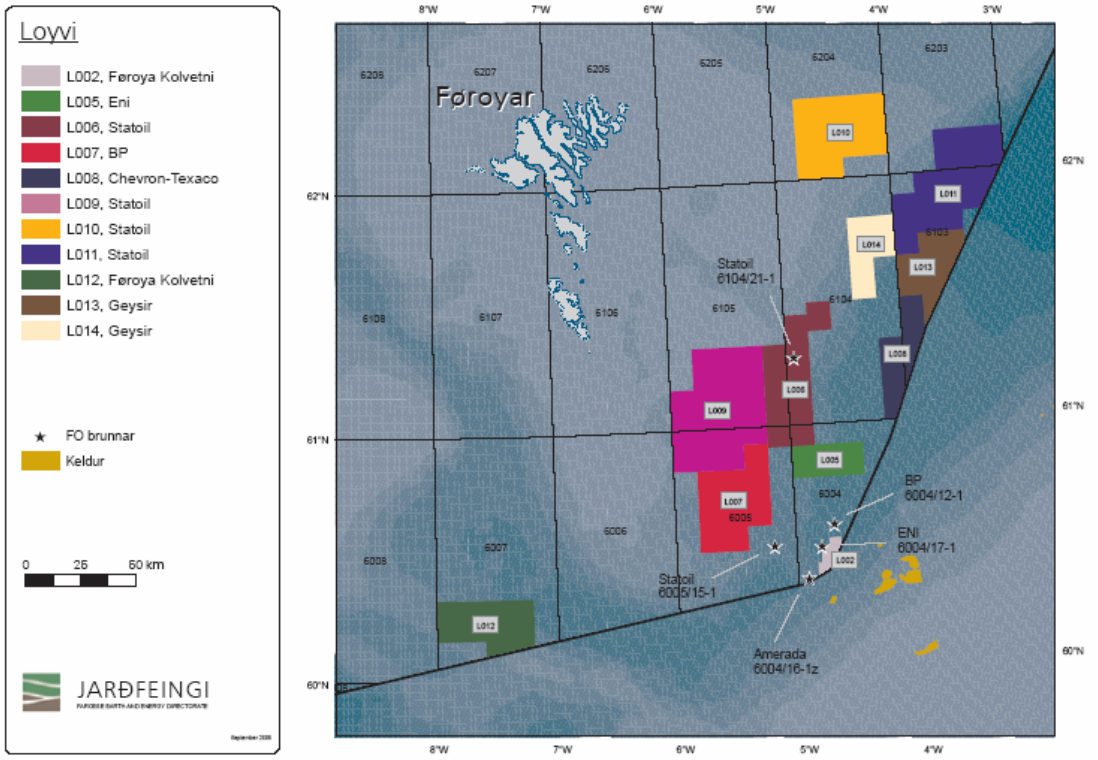


Figure 1. Location of wells in Faroese waters, adjacent to the Faroes/UK boundary line. (Figure from Jarðfeingi website).

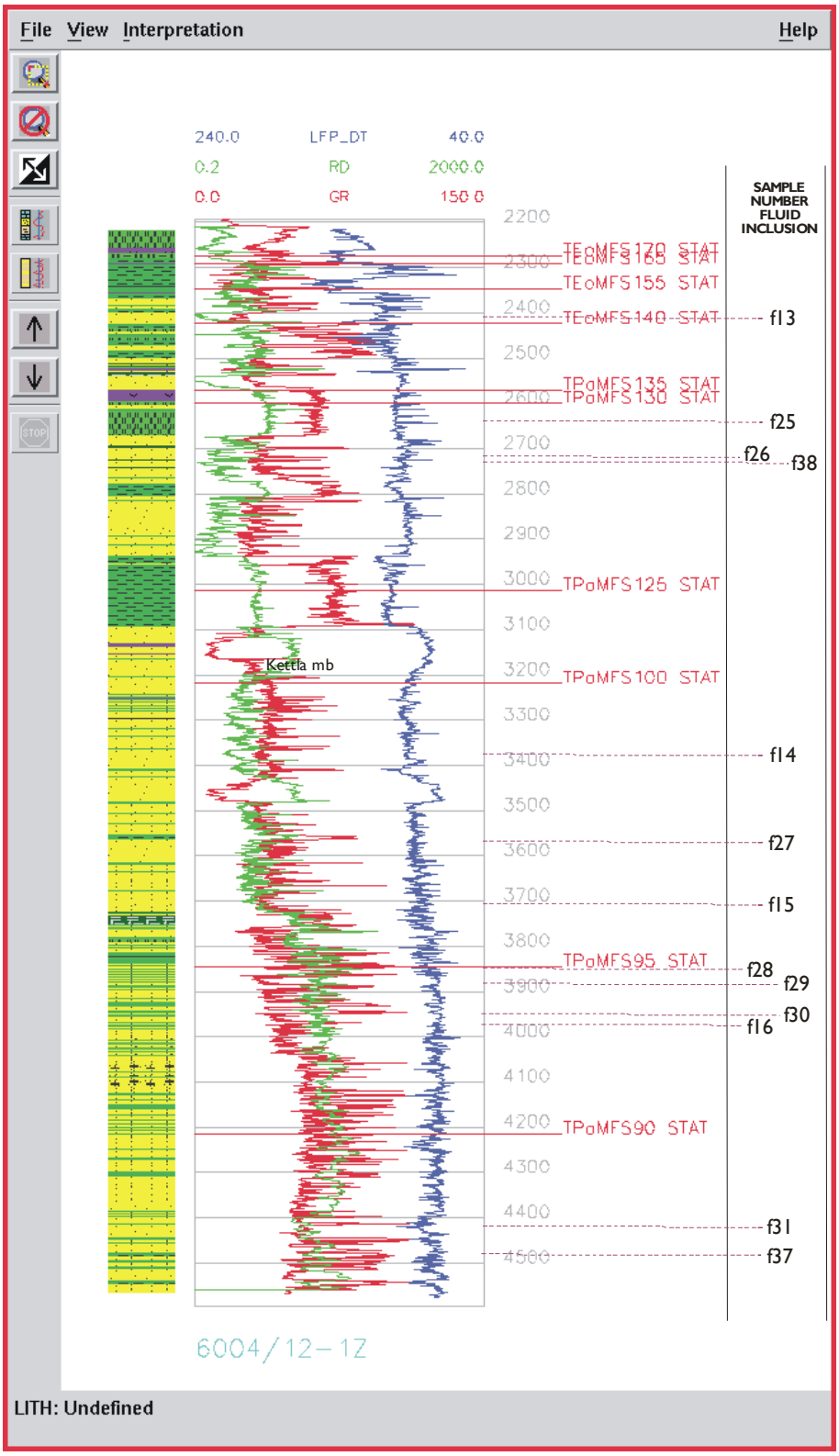


Figure 2. Distribution of samples in well 6004-12-1.

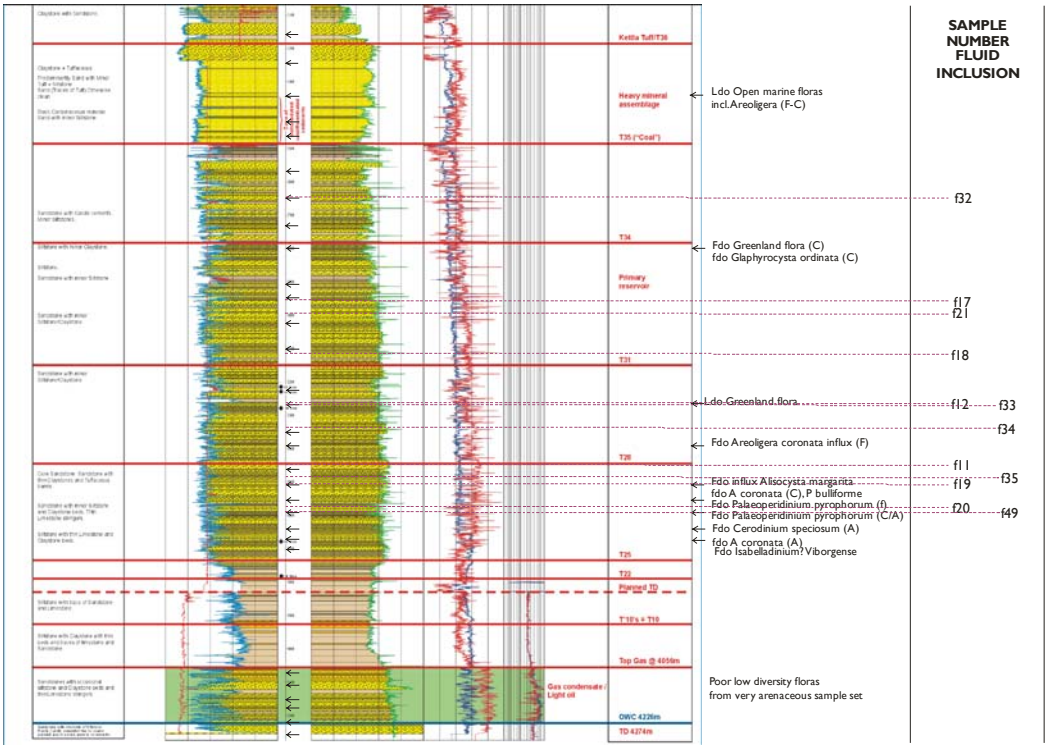


Figure 3. Distribution of samples in well 6004-16-1.

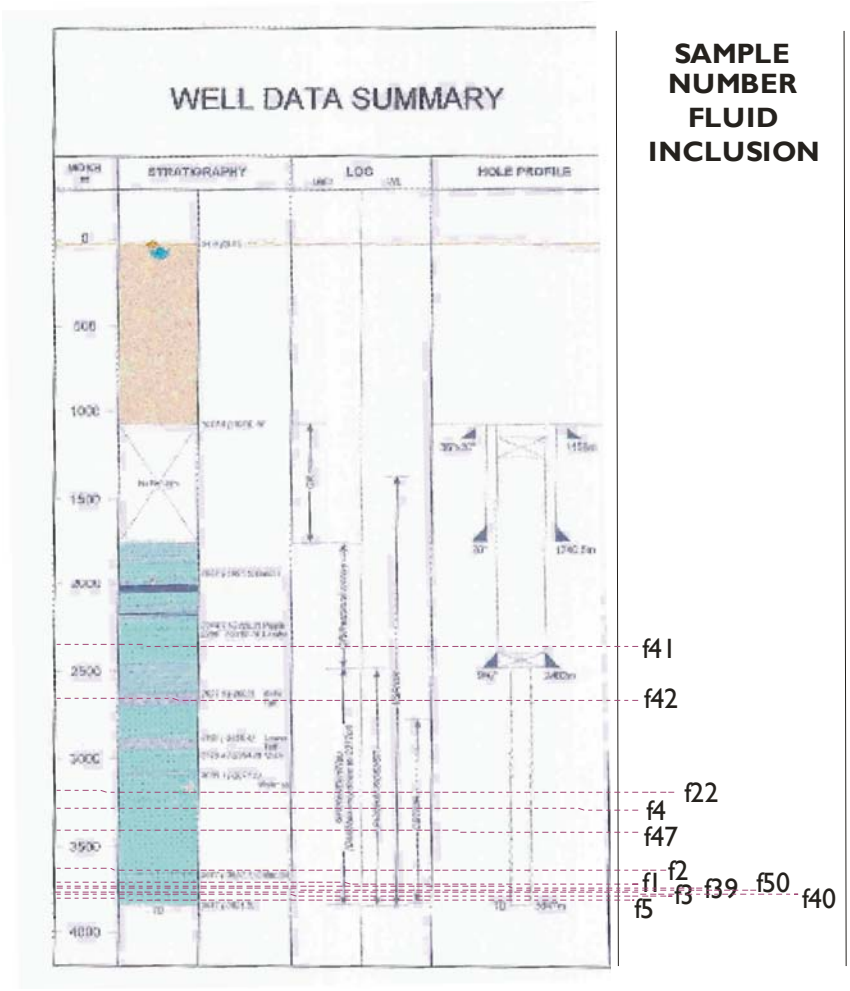


Figure 4. Distribution of samples in well 6004-17-1.

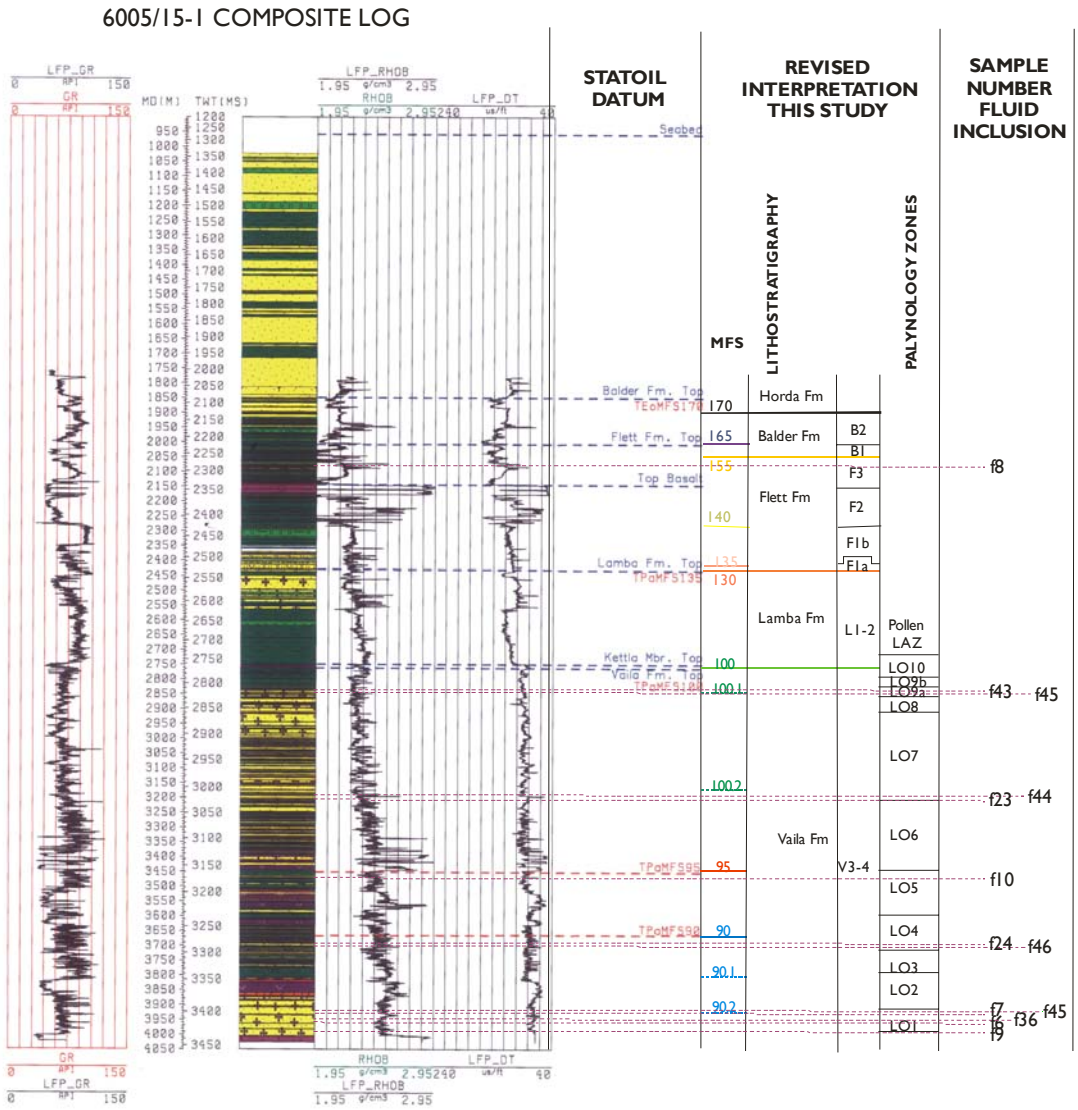


Figure 5. Distribution of samples in well 6005-15-1.

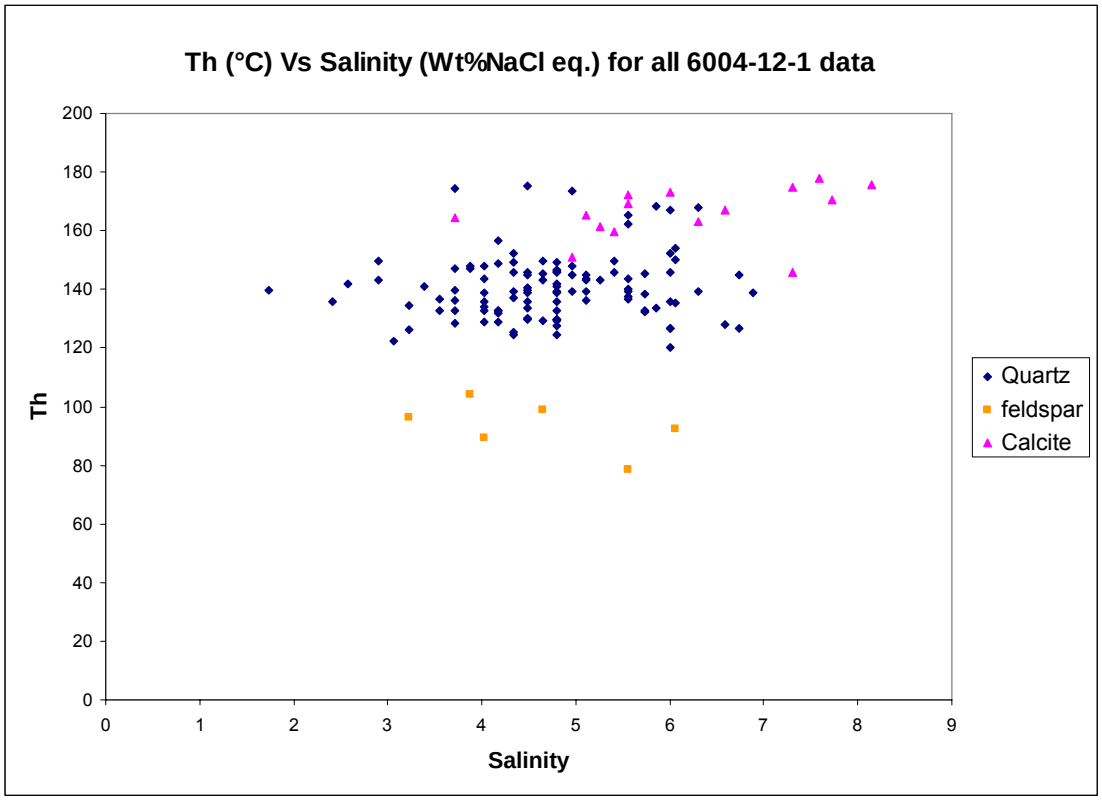


Figure 6. Cross-plot of salinity against homogenization temperature (Th) for well 6004-12-1.

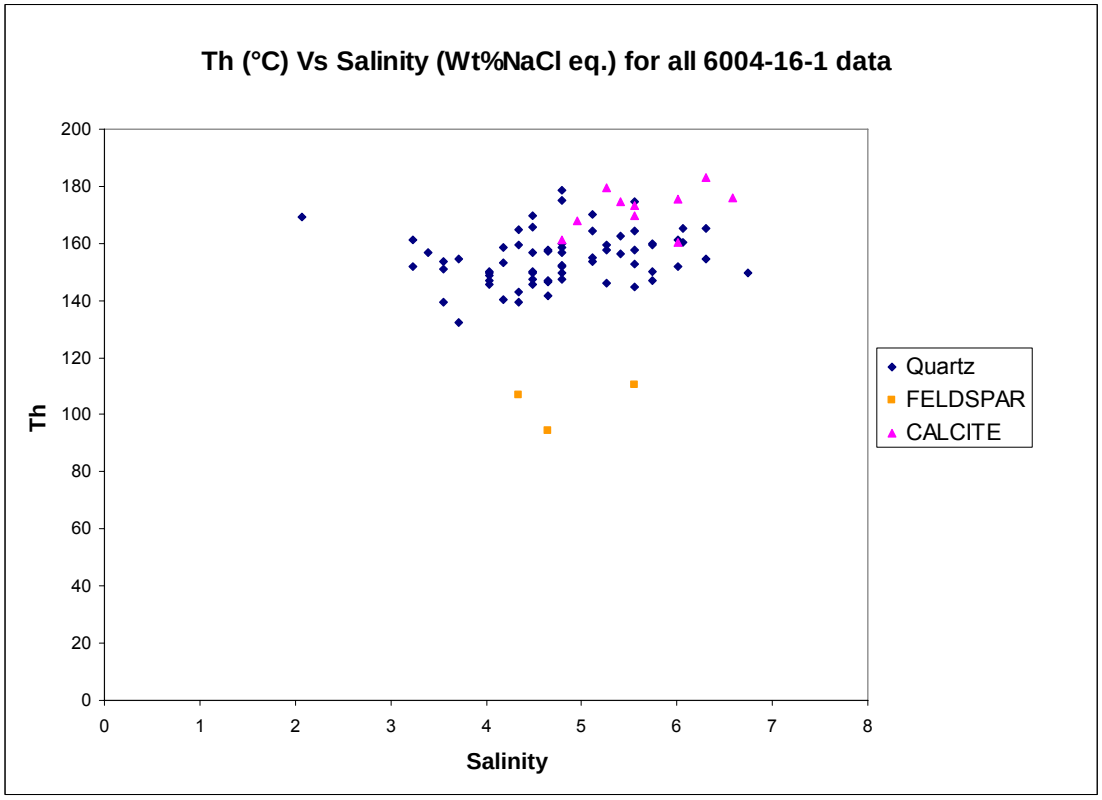


Figure 7. Cross-plot of salinity against homogenization temperature (Th) for well 6004-16-1.

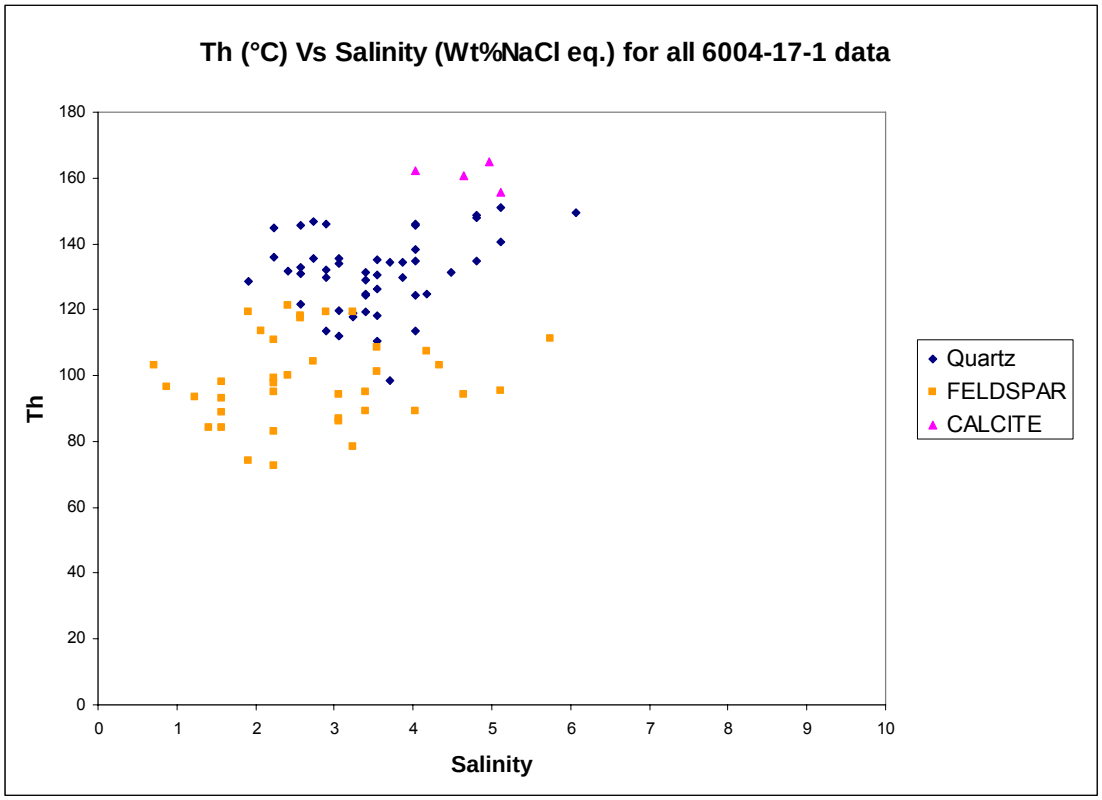


Figure 8. Cross-plot of salinity against homogenization temperature (Th) for well 6004-17-1.

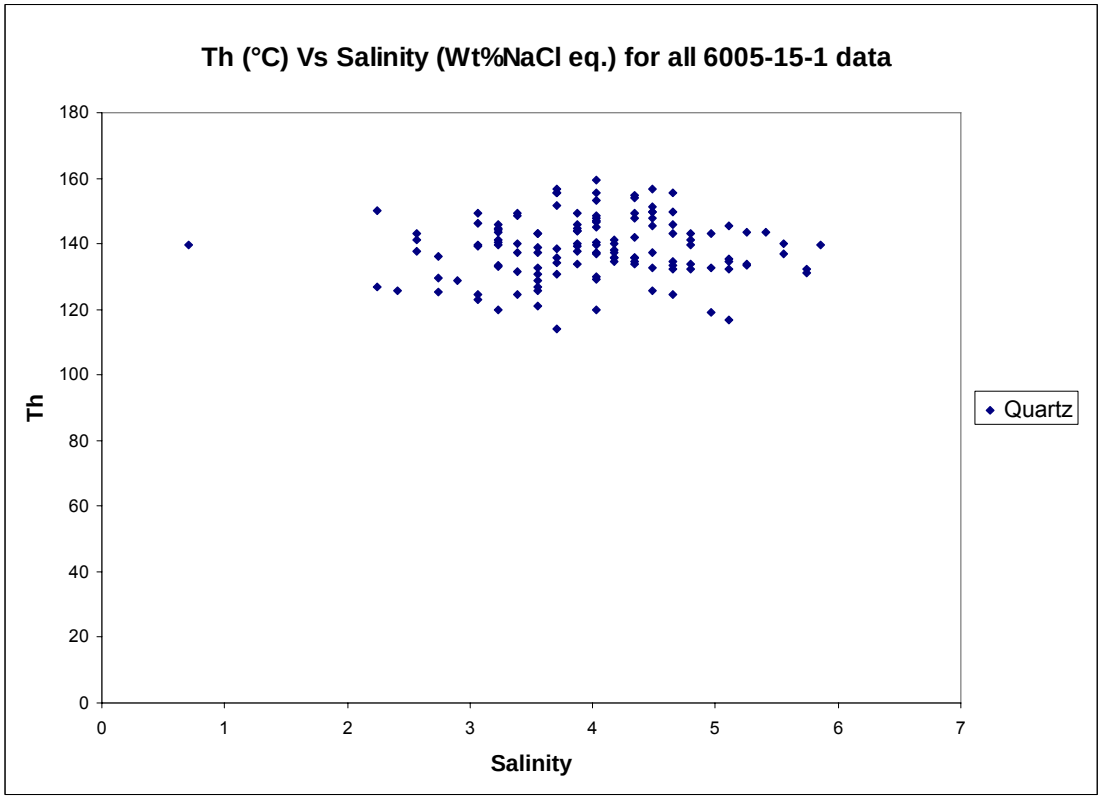


Figure 9. Cross-plot of salinity against homogenization temperature (Th) for well 6005-15-1.

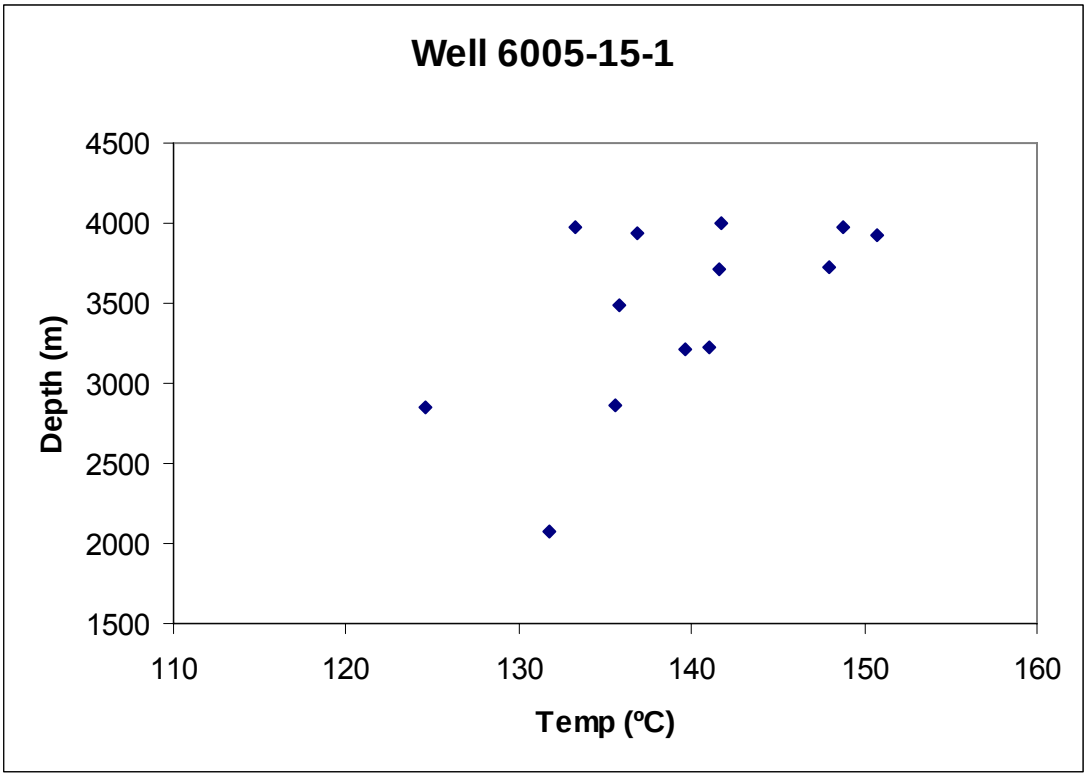


Figure 10. Fluid inclusion homogenization temperatures versus depth in well 6005-15-1. Note there is no marked correlation.

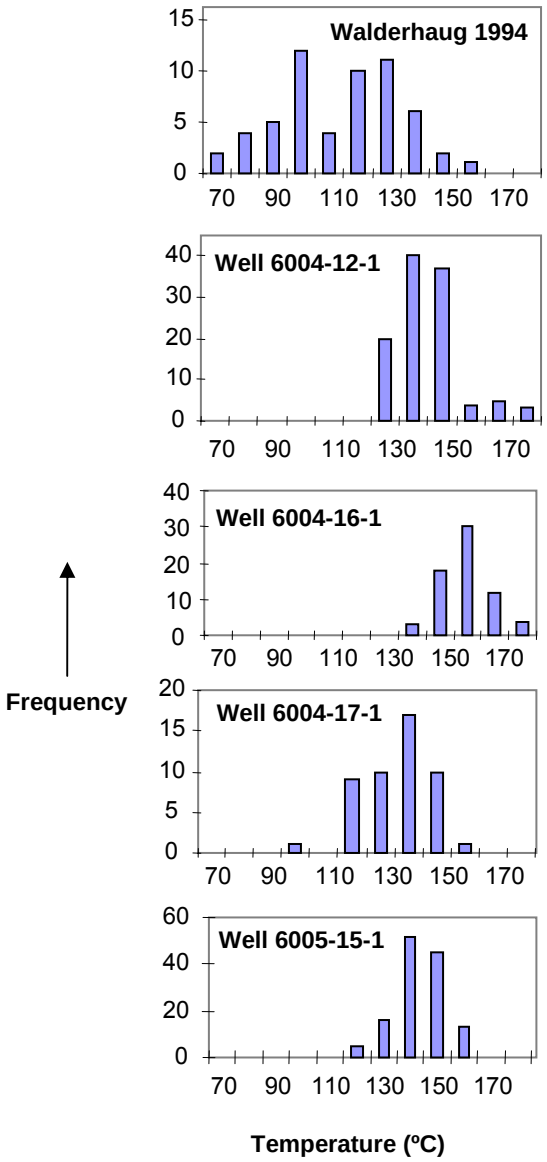


Figure 11. Homogenisation temperatures for quartz cements in 4 Faroese wells extracted from Figures 5 to 8, compared to North Sea data of Walderhaug (1994). Faroese data is anomalously hot.

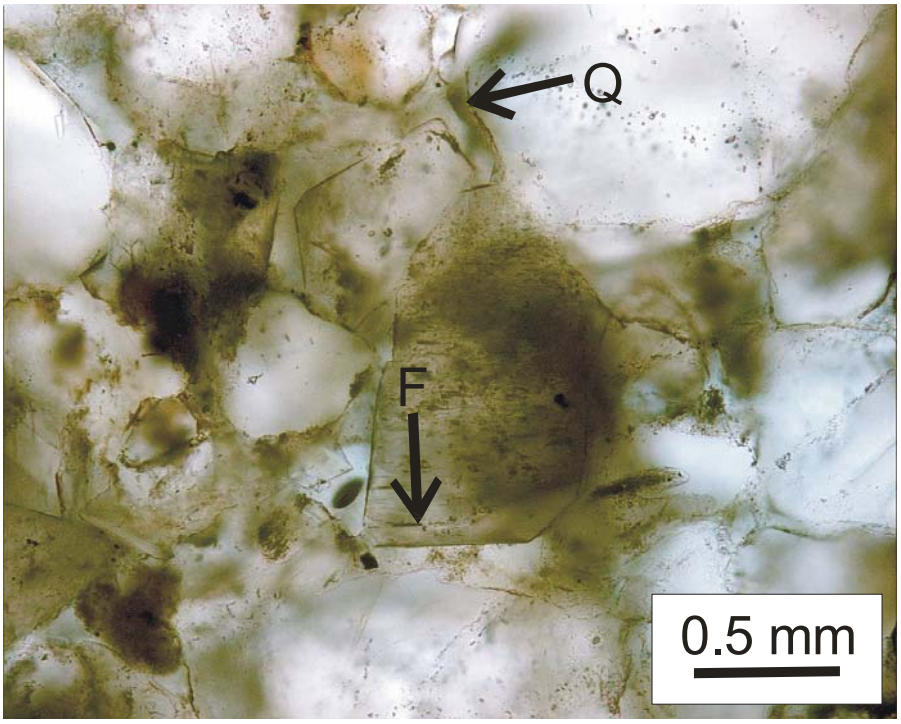
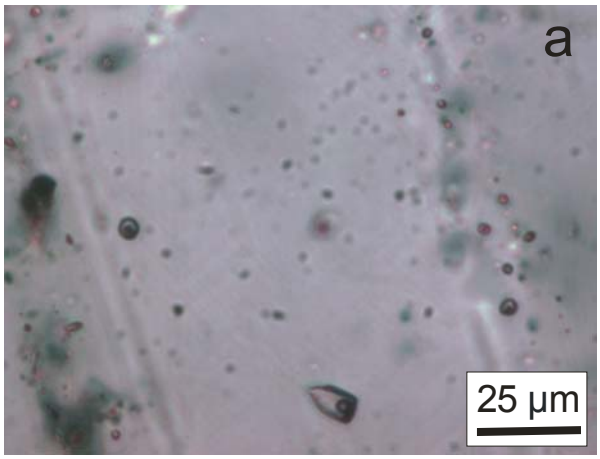
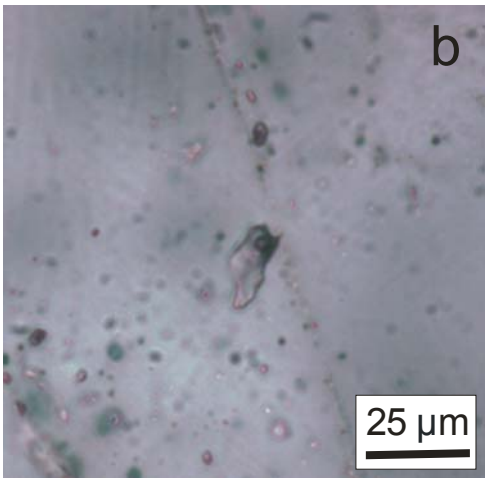


Plate 1. Photomicrograph of sandstone in plane polarized light showing feldspar (F) and quartz (Q) cements.





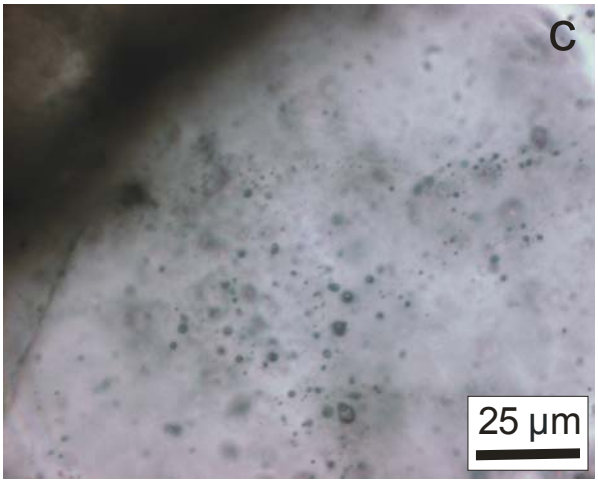


Plate 2. Fluid inclusions in (a) calcite cement, (b) feldspar cement, (c) quartz cement cement.

Appendix

Fluid inclusion data for individual samples, organised by wells. Notes: Qz=quartz, fspr=feldspar, P=primary inclusion, Aq=Aqueous inclusion, Fill%=proportion of inclusion filled by liquid, Phase changes: L=liquid, V=vapour, Th=homogenization temperature, Tm=final melting temperature

Sample Number: *f13, well 6004-12-1, depth 2400-2409*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	7	Qz cement	P	0.8	Aq	2	L&V = L	135.7	-1.4	2.41	N/A	
2	9	Qz cement	P	0.8	Aq	2	L&V = L	148.9	X	X	N/A	
3	13	Qz cement	P	0.8	Aq	2	L&V = L	151.1	X	X	N/A	
4	11	Qz cement	P	0.8	Aq	2	L&V = L	126.3	-1.9	3.23	N/A	
5	10	Qz cement	P	0.8	Aq	2	L&V = L	135.7	X	X	N/A	
6	8	Qz cement	P	0.8	Aq	2	L&V = L	139.8	-2.2	3.71	N/A	
7	7	Qz cement	P	0.8	Aq	2	L&V = L	128.7	-2.4	4.03	N/A	
8	6	Qz cement	P	0.8	Aq	2	L&V = L	129.6	-2.9	4.8	N/A	
9	5	Qz cement	P	0.8	Aq	2	L&V = L	134.5	-1.9	3.23	N/A	
10	7	Qz cement	P	0.8	Aq	2	L&V = L	130.1	X	X	N/A	
11	13	Qz cement	P	0.8	Aq	2	L&V = L	141.2	-2	3.39	N/A	
12	16	Qz cement	P	0.8	Aq	2	L&V = L	137.4	X	X	N/A	
13	17	Qz cement	P	0.8	Aq	2	L&V = L	132.5	X	X	N/A	
14	18	Qz cement	P	0.8	Aq	2	L&V = L	138.9	-2.4	4.03	N/A	
15	19	Qz cement	P	0.8	Aq	2	L&V = L	132.5	X	X	N/A	
16	17	Qz cement	P	0.8	Aq	2	L&V = L	132.6	-2.1	3.55	N/A	
17	15	Qz cement	P	0.8	Aq	2	L&V = L	134.5	X	X	N/A	
18	11	Qz cement	P	0.8	Aq	2	L&V = L	137.8	X	X	N/A	
19	13	Qz cement	P	0.8	Aq	2	L&V = L	135.9	-2.7	4.49	N/A	
20	14	Qz cement	P	0.8	Aq	2	L&V = L	129.8	X	X	N/A	

Sample Number: *f25, well 6004-12-1, depth 2568-2677*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	11	Qz cement	P	0.8	Aq	2	L&V = L	125.7	x	x	N/A	
2	6	Qz cement	P	0.8	Aq	2	L&V = L	135.9	x	x	N/A	
3	9	Qz cement	P	0.8	Aq	2	L&V = L	130	-2.7	4.49	N/A	
4	5	Qz cement	P	0.8	Aq	2	L&V = L	122.4	-1.8	3.06	N/A	
5	7	Qz cement	P	0.8	Aq	2	L&V = L	145.1	x	x	N/A	
6	8	Qz cement	P	0.8	Aq	2	L&V = L	126.6	-3.7	6.01	N/A	
7	6	Qz cement	P	0.8	Aq	2	L&V = L	123.4	x	x	N/A	
8	4	Qz cement	P	0.8	Aq	2	L&V = L	132	-2.5	4.18	N/A	
9	5	Qz cement	P	0.8	Aq	2	L&V = L	139	-2.9	4.8	N/A	
10	8	Qz cement	P	0.8	Aq	2	L&V = L	141.7	-1.5	2.57	N/A	
11	7	Qz cement	P	0.8	Aq	2	L&V = L	119.5	x	x	N/A	
12	7	Qz cement	P	0.8	Aq	2	L&V = L	128.6	-2.2	3.71	N/A	
13	7	Qz cement	P	0.8	Aq	2	L&V = L	129.3	-2.8	4.65	N/A	
14	7	Qz cement	P	0.8	Aq	2	L&V = L	138.4	x	x	N/A	
15	8	Qz cement	P	0.8	Aq	2	L&V = L	132.6	-2.5	4.18	N/A	
16	21	Qz cement	P	0.8	Aq	2	L&V = L	129.7	x	x	N/A	
17	9	Qz cement	P	0.8	Aq	2	L&V = L	144.6	x	x	N/A	
18	6	Qz cement	P	0.8	Aq	2	L&V = L	143.2	x	x	N/A	
19	7	Qz cement	P	0.8	Aq	2	L&V = L	124	x	x	N/A	
20	5	Qz cement	P	0.8	aQ	2	L&V = L	147.2	-2.3	3.87	N/A	

Sample Number: *f26, well 6004-12-1, depth 2715-2724*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	8	Qz cement	P	0.8	Aq	2	L&V = L	147.2	x	x	N/A	
2	4	Qz cement	P	0.85	Aq	2	L&V = L	130.8	x	x	N/A	
3	6	Qz cement	P	0.8	Aq	2	L&V = L	133.5	-2.7	4.49	N/A	
4	7	Qz cement	P	0.8	Aq	2	L&V = L	136.7	-2.1	3.55	N/A	
5	11	Qz cement	P	0.8	Aq	2	L&V = L	124.5	-2.9	4.8	N/A	
6	6	Qz cement	P	0.8	Aq	2	L&V = L	132.3	x	x	N/A	
7	9	Qz cement	P	0.8	Aq	2	L&V = L	139.7	x	x	N/A	
8	9	Qz cement	P	0.8	Aq	2	L&V = L	144.4	x	x	N/A	
9	9	Qz cement	P	0.7	Aq	2	L&V = L	140	-3.4	5.56	N/A	
10	8	Qz cement	P	0.8	Aq	2	L&V = L	143.2	-1.7	2.9	N/A	
11	5	Qz cement	P	0.85	Aq	2	L&V = L	147.2	x	x	N/A	
12	6	Qz cement	P	0.8	Aq	2	L&V = L	136.9	-2.6	4.34	N/A	
13	12	Qz cement	P	0.8	Aq	2	L&V = L	135.8	x	x	N/A	
14	11	Qz cement	P	0.8	Aq	2	L&V = L	129.7	-2.7	4.49	N/A	
15	9	Qz cement	P	0.75	Aq	2	L&V = L	136.1	x	x	N/A	
16	7	Qz cement	P	0.85	Aq	2	L&V = L	147.8	-2.3	3.87	N/A	
17	5	Qz cement	P	0.85	Aq	2	L&V = L	143.2	-3.2	5.26	N/A	
18	6	Qz cement	P	0.8	Aq	2	L&V = L	147.9	x	x	N/A	
19	8	Qz cement	P	0.8	Aq	2	L&V = L	143.2	x	x	N/A	
20	5	Qz cement	P	0.8	Aq	2	L&V = L	149.8	-1.7	2.9	N/A	

Sample Number: *f38, well 6004-12-1, depth 2724-2733*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	6	Qz cement	P	0.8	Aq	2	L&V = L	120.3	-3.7	6.01	N/A	
2	9	Qz cement	P	0.8	Aq	2	L&V = L	127.4	-2.9	4.8	N/A	
3	7	Qz cement	P	0.8	Aq	2	L&V = L	121.4	x	x	N/A	
4	8	Qz cement	P	0.8	Aq	2	L&V = L	136.8	x	x	N/A	
5	7	Qz cement	P	0.8	Aq	2	L&V = L	133.2	x	x	N/A	
6	8	Qz cement	P	0.8	Aq	2	L&V = L	129.9	x	x	N/A	
7	7	Qz cement	P	0.8	Aq	2	L&V = L	120.7	x	x	N/A	
8	7	Qz cement	P	0.8	Aq	2	L&V = L	132.8	-2.5	4.18	N/A	
9	7	Qz cement	P	0.8	Aq	2	L&V = L	125.4	-2.6	4.34	N/A	
10	9	Qz cement	P	0.8	Aq	2	L&V = L	126.7	x	x	N/A	
11	8	Qz cement	P	0.8	Aq	2	L&V = L	139.6	-2.7	4.49	N/A	
12	15	Qz cement	P	0.8	Aq	2	L&V = L	124.1	x	x	N/A	
13	6	Qz cement	P	0.8	Aq	2	L&V = L	139.4	-3.9	6.3	N/A	
14	12	Qz cement	P	0.8	Aq	2	L&V = L	126.8	-4.2	6.74	N/A	
15	9	Qz cement	P	0.8	Aq	2	L&V = L	128.7	-2.5	4.18	N/A	
16	7	Qz cement	P	0.8	Aq	2	L&V = L	123.6	x	x	N/A	
17	6	Qz cement	P	0.8	Aq	2	L&V = L	124.5	-2.6	4.34	N/A	
18	8	Qz cement	P	0.8	Aq	2	L&V = L	135.3	-3.8	6.06	N/A	
19	9	Qz cement	P	0.8	Aq	2	L&V = L	130.8	x	x	N/A	
20	7	Qz cement	P	0.8	Aq	2	L&V = L	132.7	x	x	N/A	

Sample Number: *f14, well 6004-12-1, depth 3371-3380*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	10	Qz cement	P	0.85	Aq	2	L&V = L	136.7	-3.4	5.56	N/A	
2	14	Qz cement	P	0.8	Aq	2	L&V = L	152.6	X	X	N/A	
3	13	Qz cement	P	0.8	Aq	2	L&V = L	154.2	-3.8	6.06	N/A	
4	9	Qz cement	P	0.8	Aq	2	L&V = L	145.1	X	X	N/A	
5	8	Qz cement	P	0.8	Aq	2	L&V = L	146.3	-2.9	4.8	N/A	
6	21	Qz cement	P	0.8	Aq	2	L&V = L	147.8	-2.4	4.03	N/A	
7	12	Qz cement	P	0.9	Aq	2	L&V = L	145.2	X	X	N/A	
8	16	Qz cement	P	0.8	Aq	2	L&V = L	149.3	-2.6	4.34	N/A	
9	8	Qz cement	P	0.85	Aq	2	L&V = L	162.3	X	X	N/A	
10	7	Qz cement	P	0.8	Aq	2	L&V = L	164.7	X	X	N/A	
11	14	Qz cement	P	0.8	Aq	2	L&V = L	138.9	-2.7	4.49	N/A	
12	15	Qz cement	P	0.85	Aq	2	L&V = L	137.4	X	X	N/A	
13	16	Qz cement	P	0.8	Aq	2	L&V = L	149.8	-3.3	5.41	N/A	
14	19	Qz cement	P	0.8	Aq	2	L&V = L	144.2	X	X	N/A	
15	17	Qz cement	P	0.9	Aq	2	L&V = L	143.5	-3.4	5.56	N/A	
16	18	Qz cement	P	0.8	Aq	2	L&V = L	139.9	X	X	N/A	
17	13	Qz cement	P	0.8	Aq	2	L&V = L	145.7	-3.7	6.01	N/A	
18	12	Qz cement	P	0.85	Aq	2	L&V = L	146.8	X	X	N/A	
19	11	Qz cement	P	0.8	Aq	2	L&V = L	164.1	X	X	N/A	
20	10	Qz cement	P	0.9	Aq	2	L&V = L	150	-3.8	6.06	N/A	

Sample Number: *f27, well 6004-12-1, depth 3572-3581*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	7	Qz cement	P	0.8	Aq	2	L&V = L	168.3	-3.6	5.86	N/A	
2	5	Qz cement	P	0.85	Aq	2	L&V = L	146.7	-2.9	4.8	N/A	
3	5	Qz cement	P	0.8	Aq	2	L&V = L	152.3	-3.7	6.01	N/A	
4	6	Qz cement	P	0.8	Aq	2	L&V = L	143.2	-2.8	4.65	N/A	
5	6	Qz cement	P	0.8	Aq	2	L&V = L	139.8	-1	1.74	N/A	
6	6	Qz cement	P	0.8	Aq	2	L&V = L	154.7	x	x	N/A	
7	6	Qz cement	P	0.75	Aq	2	L&V = L	129.8	x	x	N/A	
8	7	Qz cement	P	0.8	Aq	2	L&V = L	141.2	x	x	N/A	
9	8	Qz cement	P	0.8	Aq	2	L&V = L	139.6	x	x	N/A	
10	6	Qz cement	P	0.8	Aq	2	L&V = L	134.7	x	x	N/A	
11	5	Qz cement	P	0.65	Aq	2	L&V = L	138.5	x	x	N/A	
12	9	Qz cement	P	0.75	Aq	2	L&V = L	143.2	x	x	N/A	
13	4	Qz cement	P	0.8	Aq	2	L&V = L	147.6	x	x	N/A	
14	4	Qz cement	P	0.8	Aq	2	L&V = L	142.7	x	x	N/A	
15	4	Qz cement	P	0.8	Aq	2	L&V = L	146.9	x	x	N/A	
16	6	Qz cement	P	0.8	Aq	2	L&V = L	145	-4.2	6.74	N/A	
17	7	Qz cement	P	0.8	Aq	2	L&V = L	138.7	-4.3	6.88	N/A	
18	9	Qz cement	P	0.8	Aq	2	L&V = L	136.4	-3.1	5.11	N/A	
19	8	Qz cement	P	0.8	Aq	2	L&V = L	132.3	-3.5	5.74	N/A	
20	7	Qz cement	P	0.8	Aq	2	L&V = L	143.7	-3.1	5.11	N/A	

Sample Number: *f15, well 6004-12-1, depth 3701-3710*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	8	fspr cement	P	0.8	Aq	2	L&V = L	101.2	x	x	N/A	
2	7	fspr cement	P	0.8	Aq	2	L&V = L	89.3	-2.4	4.03	N/A	
3	10	fspr cement	P	0.8	Aq	2	L&V = L	94.5	x	x	N/A	
4	6	fspr cement	P	0.8	Aq	2	L&V = L	98.7	-2.8	4.65	N/A	
5	7	fspr cement	P	0.8	Aq	2	L&V = L	111.3	x	x	N/A	
6	9	fspr cement	P	0.8	Aq	2	L&V = L	104.2	-2.3	3.87	N/A	
7	6	fspr cement	P	0.8	Aq	2	L&V = L	96.3	x	x	N/A	
8	5	fspr cement	P	0.8	Aq	2	L&V = L	78.4	-3.4	5.56	N/A	
9	8	fspr cement	P	0.8	Aq	2	L&V = L	85.1	x	x	N/A	
10	7	fspr cement	P	0.8	Aq	2	L&V = L	92.6	-3.8	6.06	N/A	
11	4	fspr cement	P	0.8	Aq	2	L&V = L	95.5	x	x	N/A	
12	6	fspr cement	P	0.8	Aq	2	L&V = L	95.4	x	x	N/A	
13	17	calcite	P	0.9	Aq	2	L&V = L	165.2	x	x	N/A	
14	20	calcite	P	0.9	Aq	2	L&V = L	175.4	x	x	N/A	
15	19	calcite	P	0.9	Aq	2	L&V = L	145.8	-4.6	7.31	N/A	
16	22	calcite	P	0.9	Aq	2	L&V = L	176.8	x	x	N/A	
17	14	calcite	P	0.9	Aq	2	L&V = L	175.9	-5.2	8.14	N/A	
18	16	calcite	P	0.9	Aq	2	L&V = L	177.7	-4.8	7.59	N/A	
19	17	calcite	P	0.9	Aq	2	L&V = L	165.2	-3.1	5.11	N/A	
20	15	calcite	P	0.9	Aq	2	L&V = L	170.3	-4.9	7.73	N/A	

Sample Number: *f28, well 6004-12-1, depth 3851-3860*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	6	fspr cement	P	0.8	Aq	2	L&V = L	96.2	-1.9	3.23	N/A	
2	8	fspr cement	P	0.8	Aq	2	L&V = L	101.3	x	x	N/A	
3	5	Qz cement	P	0.8	Aq	2	L&V = L	132.8	-3.5	5.74	N/A	
4	6	Qz cement	P	0.8	Aq	2	L&V = L	132.9	-2.4	4.03	N/A	
5	5	Qz cement	P	0.8	Aq	2	L&V = L	145.4	-2.8	4.65	N/A	
6	7	Qz cement	P	0.8	Aq	2	L&V = L	126.9	x	x	N/A	
7	9	Qz cement	P	0.8	Aq	2	L&V = L	130.7	x	x	N/A	
8	6	Qz cement	P	0.8	Aq	2	L&V = L	134.2	x	x	N/A	
9	8	Qz cement	P	0.8	Aq	2	L&V = L	140.9	x	x	N/A	
10	6	Qz cement	P	0.8	Aq	2	L&V = L	139.1	x	x	N/A	
11	7	Qz cement	P	0.8	Aq	2	L&V = L	127.4	x	x	N/A	
12	5	Qz cement	P	0.8	Aq	2	L&V = L	129.3	-2.9	4.8	N/A	
13	4	Qz cement	P	0.8	Aq	2	L&V = L	126.8	-3.7	6.01	N/A	
14	8	Qz cement	P	0.8	Aq	2	L&V = L	122.4	x	x	N/A	
15	6	Qz cement	P	0.8	Aq	2	L&V = L	127.9	-4.1	6.59	N/A	
16	14	Calcite	P	0.85	Aq	2	L&V = L	164.3	-2.2	3.71	N/A	
17	12	Calcite	P	0.8	Aq	2	L&V = L	162.8	x	x	N/A	
18	17	Calcite	P	0.9	Aq	2	L&V = L	155.1	x	x	N/A	
19	15	Calcite	P	0.9	Aq	2	L&V = L	173.2	-3.7	6.01	N/A	
20	14	Calcite	P	0.9	Aq	2	L&V = L	174.8	-4.6	7.31	N/A	

Sample Number: *f29, well 6004-12-1, depth 3869-3878*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	21	Calcite	P	0.95	Aq	2	L&V = L	169.3	x	x	N/A	
2	15	Calcite	P	0.95	Aq	2	L&V = L	159.7	x	x	N/A	
3	17	Calcite	P	0.95	Aq	2	L&V = L	172.4	-3.4	5.56	N/A	
4	14	Calcite	P	0.95	Aq	2	L&V = L	161.5	-3.2	5.26	N/A	
5	19	Calcite	P	0.95	Aq	2	L&V = L	163.2	-3.9	6.3	N/A	
6	19	Calcite	P	0.95	Aq	2	L&V = L	151.1	-3	4.96	N/A	
7	19	Calcite	P	0.95	Aq	2	L&V = L	167	-4.1	6.59	N/A	
8	20	Calcite	P	0.95	Aq	2	L&V = L	159.8	-3.3	5.41	N/A	
9	13	Calcite	P	0.95	Aq	2	L&V = L	169	-3.4	5.56	N/A	
10	8	Qz cement	P	0.8	Aq	2	L&V = L	129.7	x	x	N/A	
11	4	Qz cement	P	0.75	Aq	2	L&V = L	115.2	x	x	N/A	
12	6	Qz cement	P	0.8	Aq	2	L&V = L	118.7	x	x	N/A	
13	6	Qz cement	P	0.8	Aq	2	L&V = L	119.3	x	x	N/A	
14	7	Qz cement	P	0.85	Aq	2	L&V = L	134.7	x	x	N/A	
15	5	Qz cement	P	0.8	Aq	2	L&V = L	135.9	x	x	N/A	
16	7	Qz cement	P	0.8	Aq	2	L&V = L	130.2	x	x	N/A	
17	7	Qz cement	P	0.8	Aq	2	L&V = L	133.9	x	x	N/A	
18	5	Qz cement	P	0.8	Aq	2	L&V = L	141.2	-2.9	4.8	N/A	
19	8	Qz cement	P	0.8	Aq	2	L&V = L	136.2	-2.2	3.71	N/A	
20	8	Qz cement	P	0.8	Aq	2	L&V = L	139.3	-2.6	4.34	N/A	

Sample Number: *f30, well 6004-12-1, depth 3950-3959*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	12	Qz cement	P	0.75	Aq	2	L&V = L	139.5	x	x	N/A	
2	6	Qz cement	P	0.8	Aq	2	L&V = L	132.7	x	x	N/A	
3	8	Qz cement	P	0.9	Aq	2	L&V = L	143.5	x	x	N/A	
4	7	Qz cement	P	0.8	Aq	2	L&V = L	167.9	x	x	N/A	
5	9	Qz cement	P	0.8	Aq	2	L&V = L	135.2	x	x	N/A	
6	9	Qz cement	P	0.75	Aq	2	L&V = L	129.8	-2.9	4.8	N/A	
7	9	Qz cement	P	0.85	Aq	2	L&V = L	137.4	-3.4	5.56	N/A	
8	9	Qz cement	P	0.85	Aq	2	L&V = L	144.9	-2.7	4.49	N/A	
9	11	Qz cement	P	0.8	Aq	2	L&V = L	141.2	x	x	N/A	
10	11	Qz cement	P	0.8	Aq	2	L&V = L	149.3	x	x	N/A	
11	4	Qz cement	P	0.8	Aq	2	L&V = L	139.4	-3.1	5.11	N/A	
12	6	Qz cement	P	0.8	Aq	2	L&V = L	135.6	-2.4	4.03	N/A	
13	5	Qz cement	P	0.8	Aq	2	L&V = L	139.3	-2.9	4.8	N/A	
14	9	Qz cement	P	0.8	Aq	2	L&V = L	144.7	-3	4.96	N/A	
15	9	Qz cement	P	0.8	Aq	2	L&V = L	140.2	x	x	N/A	
16	9	Qz cement	P	0.8	Aq	2	L&V = L	143.7	-2.4	4.03	N/A	
17	7	Qz cement	P	0.8	Aq	2	L&V = L	146.9	-2.2	3.71	N/A	
18	5	Qz cement	P	0.8	Aq	2	L&V = L	135.7	-3.7	6.01	N/A	
19	6	Qz cement	P	0.8	Aq	2	L&V = L	138.9	x	x	N/A	
20	8	Qz cement	P	0.85	Aq	2	L&V = L	142.3	x	x	N/A	

Sample Number: *f16, well 6004-12-1, depth 3971-3980*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	8	Qz cement	P	0.8	Aq	2	L&V = L	156.7	-2.5	4.18	N/A	
2	10	Qz cement	P	0.8	Aq	2	L&V = L	165.3	-3.4	5.56	N/A	
3	11	Qz cement	P	0.8	Aq	2	L&V = L	174.2	-2.2	3.71	N/A	
4	9	Qz cement	P	0.8	Aq	2	L&V = L	149.8	-2.8	4.65	N/A	
5	7	Qz cement	P	0.8	Aq	2	L&V = L	152.3	-2.6	4.34	N/A	
6	8	Qz cement	P	0.8	Aq	2	L&V = L	162.4	-3.4	5.56	N/A	
7	8	Qz cement	P	0.8	Aq	2	L&V = L	166.9	-3.7	6.01	N/A	
8	8	Qz cement	P	0.8	Aq	2	L&V = L	167.8	-3.9	6.3	N/A	
9	12	Qz cement	P	0.8	Aq	2	L&V = L	173.4	-3	4.96	N/A	
10	13	Qz cement	P	0.8	Aq	2	L&V = L	175.1	-2.7	4.49	N/A	
11	17	Qz cement	P	0.85	oil	2	L&V = L	145.3	x	x	green	
12	15	Qz cement	P	0.85	oil	2	L&V = L	139.8	x	x	green	
13	6	Qz cement	P	0.85	oil	2	L&V = L	155.2	x	x	green	
14	7	Qz cement	P	0.85	oil	2	L&V = L	152	x	x	green	
15	9	Qz cement	P	0.85	oil	2	L&V = L	156.9	x	x	green	
16	8	Qz cement	P	0.85	oil	2	L&V = L	153.7	x	x	green	
17	5	Qz cement	P	0.85	oil	2	L&V = L	158.4	x	x	green	
18	4	Qz cement	P	0.85	oil	2	L&V = L	144.3	x	x	green	
19	5	Qz cement	P	0.85	oil	2	L&V = L	147	x	x	green	
20	5	Qz cement	P	0.85	oil	2	L&V = L	149.2	x	x	green	

Sample Number: *f31, well 6004-12-1, depth 4409-4420*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	9	Qz cement	P	0.8	Aq	2	L&V = L	145.6	-2.9	4.8	N/A	
2	4	Qz cement	P	0.8	Aq	2	L&V = L	132.9	-2.2	3.71	N/A	
3	7	Qz cement	P	0.8	Aq	2	L&V = L	139.7	x	x	N/A	
4	8	Qz cement	P	0.8	Aq	2	L&V = L	133	x	x	N/A	
5	7	Qz cement	P	0.8	Aq	2	L&V = L	135.8	x	x	N/A	
6	7	Qz cement	P	0.8	Aq	2	L&V = L	132.4	x	x	N/A	
7	7	Qz cement	P	0.8	Aq	2	L&V = L	146.7	x	x	N/A	
8	8	Qz cement	P	0.8	Aq	2	L&V = L	139.2	x	x	N/A	
9	9	Qz cement	P	0.8	Aq	2	L&V = L	146.9	x	x	N/A	
10	10	Qz cement	P	0.8	Aq	2	L&V = L	149	x	x	N/A	
11	11	Qz cement	P	0.8	Aq	2	L&V = L	132	x	x	N/A	
12	14	Qz cement	P	0.8	Aq	2	L&V = L	148.2	x	x	N/A	
13	9	Qz cement	P	0.8	Aq	2	L&V = L	141.9	-2.9	4.8	N/A	
14	7	Qz cement	P	0.8	Aq	2	L&V = L	145.7	-2.6	4.34	N/A	
15	7	Qz cement	P	0.8	Aq	2	L&V = L	148.6	-2.5	4.18	N/A	
16	8	Qz cement	P	0.8	Aq	2	L&V = L	143	-3.1	5.11	N/A	
17	6	Qz cement	P	0.8	Aq	2	L&V = L	145.7	-3.3	5.41	N/A	
18	5	Qz cement	P	0.8	Aq	2	L&V = L	145.9	-2.7	4.49	N/A	
19	7	Qz cement	P	0.8	Aq	2	L&V = L	132.8	-2.9	4.8	N/A	
20	8	Qz cement	P	0.8	Aq	2	L&V = L	140.5	-2.7	4.49	N/A	

Sample Number: *f37, well 6004-12-1, depth 4481-4490*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	8	Qz cement	P	0.8	Aq	2	L&V = L	149.2	-2.9	4.8	N/A	
2	7	Qz cement	P	0.8	Aq	2	L&V = L	143.5	x	x	N/A	
3	6	Qz cement	P	0.85	Aq	2	L&V = L	136.7	x	x	N/A	
4	4	Qz cement	P	0.8	Aq	2	L&V = L	133.4	x	x	N/A	
5	9	Qz cement	P	0.8	Aq	2	L&V = L	139.2	-3.4	5.56	N/A	
6	7	Qz cement	P	0.8	Aq	2	L&V = L	145.2	-3.5	5.74	N/A	
7	6	Qz cement	P	0.9	Aq	2	L&V = L	143.4	x	x	N/A	
8	6	Qz cement	P	0.9	Aq	2	L&V = L	147.9	-3	4.96	N/A	
9	7	Qz cement	P	0.9	Aq	2	L&V = L	129.8	x	x	N/A	
10	7	Qz cement	P	0.8	Aq	2	L&V = L	149.2	x	x	N/A	
11	7	Qz cement	P	0.8	Aq	2	L&V = L	154.6	x	x	N/A	
12	7	Qz cement	P	0.8	Aq	2	L&V = L	132.8	x	x	N/A	
13	9	Qz cement	P	0.8	Aq	2	L&V = L	133.9	-2.4	4.03	N/A	
14	11	Qz cement	P	0.8	Aq	2	L&V = L	135.7	-2.9	4.8	N/A	
15	6	Qz cement	P	0.8	Aq	2	L&V = L	139.4	-3	4.96	N/A	
16	5	Qz cement	P	0.8	Aq	2	L&V = L	130	x	x	N/A	
17	5	Qz cement	P	0.8	Aq	2	L&V = L	134.7	x	x	N/A	
18	5	Qz cement	P	0.8	Aq	2	L&V = L	138.5	-3.5	5.74	N/A	
19	4	Qz cement	P	0.8	Aq	2	L&V = L	133.6	-3.6	5.86	N/A	
20	5	Qz cement	P	0.8	Aq	2	L&V = L	144.7	-3.1	5.11	N/A	

Sample Number: *f32, well 6004-16-1, depth 2639-2648*

Calibration Date: *01/01/2007*

NO FLUID INCLUSION WORK POSSIBLE - SAMPLE BLACK AND NO MINERAL PASES VISIBLE DUE TO SMALL GRAIN SIZE.

Sample Number: *f17, well 6004-16-1, depth 2957-2968*
f17, well 16-1, depth 2957-2968
Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	14	calcite cement	P	0.65	Aq	2	L&V = L	183.2	-3.9	6.3	N/A	
2	17	calcite cement	P	0.65	Aq	2	L&V = L	174.6	x	x	N/A	
3	23	calcite cement	P	0.7	Aq	2	L&V = L	175.9	-4.1	6.59	N/A	
4	20	calcite cement	P	0.8	Aq	2	L&V = L	161.3	-2.9	4.8	N/A	
5	11	calcite cement	P	0.8	Aq	2	L&V = L	169.5	-3.4	5.56	N/A	
6	21	calcite cement	P	0.7	Aq	2	L&V = L	160.2	-3.7	6.01	N/A	
7	23	calcite cement	P	0.75	Aq	2	L&V = L	164.3	x	x	N/A	
8	16	calcite cement	P	0.8	Aq	2	L&V = L	166	x	x	N/A	
9	19	calcite cement	P	0.8	Aq	2	L&V = L	167.8	-3	4.96	N/A	
10	20	calcite cement	P	0.8	Aq	2	L&V = L	174.3	x	x	N/A	
11	12	calcite cement	P	0.75	Aq	2	L&V = L	172.8	x	x	N/A	
12	14	calcite cement	P	0.8	Aq	2	L&V = L	173.4	-3.4	5.56	N/A	
13	15	calcite cement	P	0.8	Aq	2	L&V = L	179.8	x	x	N/A	
14	16	calcite cement	P	0.7	Aq	2	L&V = L	175.4	x	x	N/A	
15	19	calcite cement	P	0.8	Aq	2	L&V = L	179.6	-3.2	5.26	N/A	
16	17	calcite cement	P	0.8	Aq	2	L&V = L	173.2	x	x	N/A	
17	18	calcite cement	P	0.75	Aq	2	L&V = L	174.5	-3.3	5.41	N/A	
18	16	calcite cement	P	0.8	Aq	2	L&V = L	177.8	x	x	N/A	
19	20	calcite cement	P	0.8	Aq	2	L&V = L	175.6	-3.7	6.01	N/A	
20	21	calcite cement	P	0.6	Aq	2	L&V = L	174.3	x	x	N/A	

Some qz Ogs but no visible fluid inclusions - qz pre calcite

Sample Number: *f21, well 6004-16-1, depth 2984-2993*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	14	Qz cement	P	0.8	Aq	2	L&V = L	169.2	x	x	N/A	
2	11	Qz cement	P	0.8	Aq	2	L&V = L	148.7	x	x	N/A	
3	15	Qz cement	P	0.8	Aq	2	L&V = L	154.7	-2.2	3.71	N/A	
4	12	Qz cement	P	0.8	Aq	2	L&V = L	155.2	-3.1	5.11	N/A	
5	13	Qz cement	P	0.8	Aq	2	L&V = L	164.7	-2.6	4.34	N/A	
6	9	Qz cement	P	0.75	Aq	2	L&V = L	139.8	x	x	N/A	
7	7	Qz cement	P	0.85	Aq	2	L&V = L	132.5	-2.2	3.71	N/A	
8	11	Qz cement	P	0.8	Aq	2	L&V = L	147.1	-2.4	4.03	N/A	
9	16	Qz cement	P	0.8	Aq	2	L&V = L	141.8	-2.8	4.65	N/A	
10	13	Qz cement	P	0.8	Aq	2	L&V = L	144.5	x	x	N/A	
11	12	Qz cement	P	0.85	Aq	2	L&V = L	161	x	x	N/A	
12	12	Qz cement	P	0.8	Aq	2	L&V = L	152.1	-2.9	4.8	N/A	
13	14	Qz cement	P	0.8	Aq	2	L&V = L	153.7	-3.1	5.11	N/A	
14	9	Qz cement	P	0.75	Aq	2	L&V = L	138.7	x	x	N/A	
15	6	Qz cement	P	0.8	Aq	2	L&V = L	146.9	x	x	N/A	
16	8	Qz cement	P	0.8	Aq	2	L&V = L	141.3	x	x	N/A	
17	9	Qz cement	P	0.8	Aq	2	L&V = L	147.7	x	x	N/A	
18	10	Qz cement	P	0.8	Aq	2	L&V = L	152.8	x	x	N/A	
19	10	Qz cement	P	0.9	Aq	2	L&V = L	160	-3.5	5.74	N/A	
20	15	Qz cement	P	0.8	Aq	2	L&V = L	153.7	-2.1	3.55	N/A	

Sample Number: *f18, well 6004-16-1, depth 3110-3119*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	7	Qz cement	P	0.85	Aq	2	L&V = L	157.9	-2.8	4.65	N/A	
2	9	Qz cement	P	0.85	Aq	2	L&V = L	143.2	x	x	N/A	
3	5	Qz cement	P	0.85	Aq	2	L&V = L	169.8	x	x	N/A	
4	11	Qz cement	P	0.85	Aq	2	L&V = L	164.2	-3.4	5.56	N/A	
5	10	Qz cement	P	0.85	Aq	2	L&V = L	163.5	x	x	N/A	
6	9	Qz cement	P	0.85	Aq	2	L&V = L	169.8	-2.7	4.49	N/A	
7	9	Qz cement	P	0.85	Aq	2	L&V = L	147.3	x	x	N/A	
8	9	Qz cement	P	0.85	Aq	2	L&V = L	154.7	x	x	N/A	
9	9	Qz cement	P	0.85	Aq	2	L&V = L	156.8	-2	3.39	N/A	
10	8	Qz cement	P	0.85	Aq	2	L&V = L	153.1	x	x	N/A	
11	7	Qz cement	P	0.85	Aq	2	L&V = L	151	-2.1	3.55	N/A	
12	6	Qz cement	P	0.85	Aq	2	L&V = L	155.4	x	x	N/A	
13	9	Qz cement	P	0.85	Aq	2	L&V = L	156.7	-2.7	4.49	N/A	
14	9	Qz cement	P	0.85	Aq	2	L&V = L	159.3	x	x	N/A	
15	9	Qz cement	P	0.85	Aq	2	L&V = L	159.4	-2.6	4.34	N/A	
16	8	Qz cement	P	0.85	Aq	2	L&V = L	158.7	-2.9	4.8	N/A	
17	8	Qz cement	P	0.85	Aq	2	L&V = L	156.3	x	x	N/A	
18	7	Qz cement	P	0.85	Aq	2	L&V = L	157.7	-3.4	5.56	N/A	
19	6	Qz cement	P	0.85	Aq	2	L&V = L	150.2	-3.5	5.74	N/A	
20	5	Qz cement	P	0.85	Aq	2	L&V = L	162.3	x	x	N/A	

Sample Number: *f12, well 6004-16-1, depth 3238-3247*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	6	Qz cement	P	0.85	Aq	2	L&V = L	146.9	-2.8	4.65	N/A	
2	9	Qz cement	P	0.85	Aq	2	L&V = L	153.2	x	x	N/A	
3	11	Qz cement	P	0.85	oil	2	L&V = L	141.7	x	x	BLUE-GREEN	
4	10	Qz cement	P	0.85	Aq	2	L&V = L	139.8	x	x	N/A	
5	5	Qz cement	P	0.85	Aq	2	L&V = L	159.7	-2.9	4.8	N/A	
6	7	Qz cement	P	0.85	Aq	2	L&V = L	150.2	-2.4	4.03	N/A	
7	13	Qz cement	P	0.85	oil	2	L&V = L	143.2	x	x	BLUE-GREEN	
8	14	Qz cement	P	0.85	Aq	2	L&V = L	153.7	x	x	N/A	
9	10	Qz cement	P	0.85	Aq	2	L&V = L	158.4	-2.5	4.18	N/A	
10	10	Qz cement	P	0.85	Aq	2	L&V = L	164.2	-3.1	5.11	N/A	
11	8	Qz cement	P	0.85	Aq	2	L&V = L	163.7	x	x	N/A	
12	8	Qz cement	P	0.85	oil	2	L&V = L	138.7	x	x	BLUE	
13	8	Qz cement	P	0.85	Aq	2	L&V = L	148.9	-2.4	4.03	N/A	
14	9	Qz cement	P	0.85	Aq	2	L&V = L	146.6	-2.8	4.65	N/A	
15	6	Qz cement	P	0.85	Aq	2	L&V = L	149.7	-2.7	4.49	N/A	
16	7	Qz cement	P	0.85	oil	2	L&V = L	145.2	x	x	BLUE-GREEN	
17	9	Qz cement	P	0.85	Aq	2	L&V = L	152.1	-1.9	3.23	N/A	
18	8	Qz cement	P	0.85	Aq	2	L&V = L	156.3	x	x	N/A	
19	4	Qz cement	P	0.85	oil	2	L&V = L	142	x	x	BLUE-GREEN	
20	6	Qz cement	P	0.85	Aq	2	L&V = L	152.8	-3.4	5.56	N/A	

Sample Number: *f33, well 6004-16-1, depth 3251-3260*

Calibration Date: *01/01/2007*

NO FLUID INCLUSION WORK POSSIBLE - SAMPLE BLACK AND NO MINERAL PASES VISIBLE DUE TO SMALL GRAIN SIZE.

Sample Number: *f34, well 6004-16-1, depth 3320-3329*

Calibration Date: *01/01/2007*

NO FLUID INCLUSION WORK POSSIBLE - SAMPLE BLACK AND NO MINERAL PASES VISIBLE DUE TO SMALL GRAIN SIZE.

Sample Number: *f11, well 6004-16-1, depth 3449-3458*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	11	Qz cement	P	0.85	Aq	2	L&V = L	155.4	x	x	N/A	
2	14	Qz cement	P	0.85	Aq	2	L&V = L	156.7	-2.9	4.8	N/A	
3	15	Qz cement	P	0.85	Aq	2	L&V = L	148.3	x	x	N/A	
4	12	Qz cement	P	0.85	Aq	2	L&V = L	162.4	-3.3	5.41	N/A	
5	14	Qz cement	P	0.85	Aq	2	L&V = L	155.2	x	x	N/A	
6	11	Qz cement	P	0.85	Aq	2	L&V = L	149.8	-2.4	4.03	N/A	
7	9	Qz cement	P	0.85	Aq	2	L&V = L	153.2	-2.5	4.18	N/A	
8	10	Qz cement	P	0.85	Aq	2	L&V = L	151.4	x	x	N/A	
9	12	Qz cement	P	0.85	Aq	2	L&V = L	156.7	x	x	N/A	
10	14	Qz cement	P	0.85	Aq	2	L&V = L	150.2	-2.7	4.49	N/A	
11	9	Qz cement	P	0.85	Aq	2	L&V = L	169.3	-1.2	2.07	N/A	
12	10	Qz cement	P	0.85	Aq	2	L&V = L	142.5	x	x	N/A	
13	10	Qz cement	P	0.85	Aq	2	L&V = L	144.6	x	x	N/A	
14	10	Qz cement	P	0.85	Aq	2	L&V = L	147.3	-2.9	4.8	N/A	
15	11	Qz cement	P	0.85	Aq	2	L&V = L	145.8	x	x	N/A	
16	13	Qz cement	P	0.85	Aq	2	L&V = L	156.3	-3.3	5.41	N/A	
17	14	Qz cement	P	0.85	Aq	2	L&V = L	152.7	x	x	N/A	
18	17	Qz cement	P	0.85	Aq	2	L&V = L	152.9	x	x	N/A	
19	11	Qz cement	P	0.85	Aq	2	L&V = L	159.6	-3.2	5.26	N/A	
20	15	Qz cement	P	0.85	Aq	2	L&V = L	145.7	-2.7	4.49	N/A	

Sample Number: *f35, well 6004-16-1, depth 3482-3491*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	16	Qz cement	P	0.8	Aq	2	L&V = L	145.6	-2.4	4.03	N/A	
2	11	Qz cement	P	0.8	Aq	2	L&V = L	139.4	-2.1	3.55	N/A	
3	14	Qz cement	P	0.8	Aq	2	L&V = L	152.8	x	x	N/A	
4	15	Qz cement	P	0.8	Aq	2	L&V = L	143.6	x	x	N/A	
5	12	Qz cement	P	0.8	Aq	2	L&V = L	149.7	x	x	N/A	
6	16	Qz cement	P	0.8	Aq	2	L&V = L	134.2	x	x	N/A	
7	19	Qz cement	P	0.8	Aq	2	L&V = L	160.1	x	x	N/A	
8	22	Qz cement	P	0.8	Aq	2	L&V = L	148.6	x	x	N/A	
9	12	Qz cement	P	0.8	Aq	2	L&V = L	147.7	x	x	N/A	
10	15	Qz cement	P	0.8	Aq	2	L&V = L	143.2	x	x	N/A	
11	17	Qz cement	P	0.8	Aq	2	L&V = L	141.9	x	x	N/A	
12	21	Qz cement	P	0.8	Aq	2	L&V = L	142.5	x	x	N/A	
13	23	Qz cement	P	0.8	Aq	2	L&V = L	144.7	-3.4	5.56	N/A	
14	15	Qz cement	P	0.8	Aq	2	L&V = L	149.7	-2.9	4.8	N/A	
15	13	Qz cement	P	0.8	Aq	2	L&V = L	143.2	-2.6	4.34	N/A	
16	17	Qz cement	P	0.8	Aq	2	L&V = L	161.4	-1.9	3.23	N/A	
17	16	Qz cement	P	0.8	Aq	2	L&V = L	159.3	-3.5	5.74	N/A	
18	17	Qz cement	P	0.8	Aq	2	L&V = L	145.9	-3.2	5.26	N/A	
19	24	Qz cement	P	0.8	Aq	2	L&V = L	140.1	-2.5	4.18	N/A	
20	20	Qz cement	P	0.8	Aq	2	L&V = L	139.4	-2.6	4.34	N/A	

Sample Number: *f19, well 6004-16-1, depth 3500-3509*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	6	fspr cement	P	0.9	Aq	2	L&V = L	110.3	-3.4	5.56	N/A	
2	9	fspr cement	P	0.9	Aq	2	L&V = L	99.7	x	x	N/A	
3	8	fspr cement	P	0.9	Aq	2	L&V = L	104.2	x	x	N/A	
4	10	fspr cement	P	0.9	Aq	2	L&V = L	94.3	-2.8	4.65	N/A	
5	12	fspr cement	P	0.9	Aq	2	L&V = L	90.7	x	x	N/A	
6	9	fspr cement	P	0.9	Aq	2	L&V = L	106.7	-2.6	4.34	N/A	
7	7	fspr cement	P	0.9	Aq	2	L&V = L	108.9	x	x	N/A	
8	14	Qz cement	P	0.8	Aq	2	L&V = L	151.2	x	x	N/A	
9	12	Qz cement	P	0.8	Aq	2	L&V = L	147.2	-3.5	5.74	N/A	
10	13	Qz cement	P	0.8	Aq	2	L&V = L	140.3	x	x	N/A	
11	11	Qz cement	P	0.8	Aq	2	L&V = L	151.7	-3.7	6.01	N/A	
12	14	Qz cement	P	0.8	Aq	2	L&V = L	152.3	x	x	N/A	
13	12	Qz cement	P	0.8	Aq	2	L&V = L	154.7	-3.9	6.3	N/A	
14	12	Qz cement	P	0.8	Aq	2	L&V = L	155.6	x	x	N/A	
15	12	Qz cement	P	0.8	Aq	2	L&V = L	152.3	-2.9	4.8	N/A	
16	14	Qz cement	P	0.8	Aq	2	L&V = L	157.4	-2.8	4.65	N/A	
17	11	Qz cement	P	0.8	Aq	2	L&V = L	165.9	-2.7	4.49	N/A	
18	13	Qz cement	P	0.8	Aq	2	L&V = L	161.1	x	x	N/A	
19	10	Qz cement	P	0.8	Aq	2	L&V = L	160	x	x	N/A	
20	15	Qz cement	P	0.8	Aq	2	L&V = L	147.3	-2.7	4.49	N/A	

Sample Number: *f20, well 6004-16-1, depth 3569-3578*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	6	Qz cement	P	0.8	Aq	2	L&V = L	165.2	-3.9	6.3	N/A	
2	7	Qz cement	P	0.8	Aq	2	L&V = L	153.2	x	x	N/A	
3	9	Qz cement	P	0.8	Aq	2	L&V = L	174.5	-3.4	5.56	N/A	
4	5	Qz cement	P	0.8	Aq	2	L&V = L	166.9	x	x	N/A	
5	8	Qz cement	P	0.8	Aq	2	L&V = L	161.4	-3.7	6.01	N/A	
6	8	Qz cement	P	0.8	Aq	2	L&V = L	158.3	x	x	N/A	
7	8	Qz cement	P	0.8	Aq	2	L&V = L	157.9	-3.2	5.26	N/A	
8	9	Qz cement	P	0.8	Aq	2	L&V = L	164.7	x	x	N/A	
9	11	Qz cement	P	0.8	Aq	2	L&V = L	163.2	x	x	N/A	
10	14	Qz cement	P	0.8	Aq	2	L&V = L	175.1	-2.9	4.8	N/A	
11	17	Qz cement	P	0.8	Aq	2	L&V = L	170	x	x	N/A	
12	12	Qz cement	P	0.8	Aq	2	L&V = L	149.8	-4.2	6.74	N/A	
13	10	Qz cement	P	0.8	Aq	2	L&V = L	165.2	-3.8	6.06	N/A	
14	9	Qz cement	P	0.8	Aq	2	L&V = L	160.3	-3.8	6.06	N/A	
15	8	Qz cement	P	0.8	Aq	2	L&V = L	174.5	x	x	N/A	
16	7	Qz cement	P	0.8	Aq	2	L&V = L	178.6	-2.9	4.8	N/A	
17	7	Qz cement	P	0.8	Aq	2	L&V = L	177.4	x	x	N/A	
18	7	Qz cement	P	0.8	Aq	2	L&V = L	170.2	-3.1	5.11	N/A	
19	9	Qz cement	P	0.8	Aq	2	L&V = L	170.3	x	x	N/A	
20	7	Qz cement	P	0.8	Aq	2	L&V = L	175.4	x	x	N/A	

Sample Number: *f49, well 6004-16-1, depth 3581-3590*

Calibration Date: *01/01/2007*

NO FLUID INCLUSION WORK POSSIBLE - SAMPLE BLACK AND NO MINERAL PASES VISIBLE DUE TO SMALL GRAIN SIZE.

Sample Number: *f41, well 6004-17-1, depth 2410-2420*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	4	Fspr cement	P	0.75	Aq	2	L&V = L	83.2	-1.3	2.24	N/A	
2	5	Fspr cement	P	0.75	Aq	2	L&V = L	86.9	-1.8	3.06	N/A	
3	4	Fspr cement	P	0.7	Aq	2	L&V = L	84.2	-0.8	1.4	N/A	
4	4	Fspr cement	P	0.8	Aq	2	L&V = L	98.3	-0.9	1.57	N/A	
5	9	Qz cement	P	0.85	Aq	2	L&V = L	110.4	-2.1	3.55	N/A	
6	6	Qz cement	P	0.85	Aq	2	L&V = L	104.2	x	x	N/A	
7	7	Qz cement	P	0.85	Aq	2	L&V = L	113.7	x	x	N/A	
8	5	Qz cement	P	0.85	Aq	2	L&V = L	131.7	-1.4	2.41	N/A	
9	5	Qz cement	P	0.85	Aq	2	L&V = L	98.6	-2.2	3.71	N/A	
10	4	Qz cement	P	0.85	Aq	2	L&V = L	104.7	x	x	N/A	
11	7	Qz cement	P	0.85	Aq	2	L&V = L	115.8	x	x	N/A	
12	8	Qz cement	P	0.85	Aq	2	L&V = L	119.1	x	x	N/A	
13	6	Qz cement	P	0.85	Aq	2	L&V = L	113.4	x	x	N/A	
14	6	Qz cement	P	0.85	Aq	2	L&V = L	117.6	x	x	N/A	
15	6	Qz cement	P	0.85	Aq	2	L&V = L	115.2	x	x	N/A	
16	7	Qz cement	P	0.85	Aq	2	L&V = L	113.4	-1.7	2.9	N/A	
17	9	Qz cement	P	0.85	Aq	2	L&V = L	117.8	-1.9	3.23	N/A	
18	6	Qz cement	P	0.85	Aq	2	L&V = L	124.5	-2	3.39	N/A	
19	5	Qz cement	P	0.85	Aq	2	L&V = L	121	x	x	N/A	
20	7	Qz cement	P	0.85	Aq	2	L&V = L	110.6	x	x	N/A	

Sample Number: *f42, well 6004-17-1, depth 2620-2630*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	12	Fspr cement	P	0.7	Aq	2	L&V = L	88.7	-0.9	1.57	N/A	
2	3	Fspr cement	P	0.75	Aq	2	L&V = L	99.4	-1.3	2.24	N/A	
3	6	Fspr cement	P	0.7	Aq	2	L&V = L	103.2	-0.4	0.71	N/A	
4	9	Fspr cement	P	0.7	Aq	2	L&V = L	94.1	-1.8	3.06	N/A	
5	5	Fspr cement	P	0.8	Aq	2	L&V = L	97.6	-1.3	2.24	N/A	
6	6	Fspr cement	P	0.7	Aq	2	L&V = L	89.4	-2	3.39	N/A	
7	4	Fspr cement	P	0.7	Aq	2	L&V = L	93.4	-0.7	1.23	N/A	
8	4	Fspr cement	P	0.65	Aq	2	L&V = L	96.7	-0.5	0.88	N/A	
9	4	Fspr cement	P	0.7	Aq	2	L&V = L	100	-1.4	2.41	N/A	
10	4	Fspr cement	P	0.8	Aq	2	L&V = L	93.1	-0.9	1.57	N/A	
11	9	Qz cement	P	0.8	Aq	2	L&V = L	123.4	x	x	N/A	
12	7	Qz cement	P	0.85	Aq	2	L&V = L	101.4	x	x	N/A	
13	8	Qz cement	P	0.85	Aq	2	L&V = L	98.7	x	x	N/A	
14	6	Qz cement	P	0.75	Aq	2	L&V = L	115.7	x	x	N/A	
15	6	Qz cement	P	0.8	Aq	2	L&V = L	110.8	x	x	N/A	
16	8	Qz cement	P	0.8	Aq	2	L&V = L	113.4	-2.4	4.03	N/A	
17	9	Qz cement	P	0.8	Aq	2	L&V = L	112	-1.8	3.06	N/A	
18	7	Qz cement	P	0.8	Aq	2	L&V = L	114.6	x	x	N/A	
19	6	Qz cement	P	0.8	Aq	2	L&V = L	117.2	x	x	N/A	
20	7	Qz cement	P	0.8	Aq	2	L&V = L	119.3	-2	3.39	N/A	

Sample Number: *f22, well 6004-17-1, depth 3230-3240*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	4	Fspr cement	P	0.75	Aq	2	L&V = L	121.2	-1.4	2.41	N/A	
2	5	Fspr cement	P	0.75	Aq	2	L&V = L	110.3	x	x	N/A	
3	6	Fspr cement	P	0.75	Aq	2	L&V = L	104.7	x	x	N/A	
4	6	Fspr cement	P	0.75	Aq	2	L&V = L	119.4	-1.1	1.91	N/A	
5	5	Fspr cement	P	0.75	Aq	2	L&V = L	119.5	-1.7	2.9	N/A	
6	6	Fspr cement	P	0.75	Aq	2	L&V = L	118.1	-1.5	2.57	N/A	
7	5	Fspr cement	P	0.75	Aq	2	L&V = L	124.9	x	x	N/A	
8	6	Fspr cement	P	0.75	Aq	2	L&V = L	104.3	x	x	N/A	
9	5	Fspr cement	P	0.75	Aq	2	L&V = L	109.5	x	x	N/A	
10	6	Fspr cement	P	0.75	Aq	2	L&V = L	117.4	-1.5	2.57	N/A	
11	4	Fspr cement	P	0.75	Aq	2	L&V = L	111	-1.3	2.24	N/A	
12	4	Fspr cement	P	0.75	Aq	2	L&V = L	120.3	x	x	N/A	
13	4	Fspr cement	P	0.75	Aq	2	L&V = L	124.7	x	x	N/A	
14	4	Fspr cement	P	0.75	Aq	2	L&V = L	118.2	x	x	N/A	
15	4	Fspr cement	P	0.75	Aq	2	L&V = L	119.5	-1.9	3.23	N/A	
16	4	Fspr cement	P	0.75	Aq	2	L&V = L	104.7	x	x	N/A	
17	4	Fspr cement	P	0.75	Aq	2	L&V = L	113.6	-1.2	2.07	N/A	
18	9	Qz cement	P	0.8	Aq	2	L&V = L	134.5	-2.3	3.87	N/A	
19	8	Qz cement	P	0.8	Aq	2	L&V = L	132.5	x	x	N/A	
20	9	Qz cement	P	0.85	Aq	2	L&V = L	119.1	-1.9	3.23	N/A	

Sample Number: *f4, well 6004-17-1, depth 3300-3310*

Calibration Date: *01/01/2007*

NO FLUID INCLUSION WORK POSSIBLE - SAMPLE BLACK AND NO MINERAL PASES VISIBLE DUE TO SMALL GRAIN SIZE.

Sample Number: *f47, well 6004-17-1, depth 3410-3420*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	4	Fspr cement	P	0.8	Aq	2	L&V = L	120.3	x	x	N/A	
2	4	Fspr cement	P	0.75	Aq	2	L&V = L	119.7	x	x	N/A	
3	4	Fspr cement	P	0.8	Aq	2	L&V = L	110.1	x	x	N/A	
4	4	Fspr cement	P	0.65	Aq	2	L&V = L	114.5	-1.6	2.74	N/A	
5	4	Fspr cement	P	0.8	Aq	2	L&V = L	104.9	-2	3.39	N/A	
6	4	Fspr cement	P	0.7	Aq	2	L&V = L	123.6	x	x	N/A	
7	4	Fspr cement	P	0.7	Aq	2	L&V = L	122.2	-1.4	2.41	N/A	
8	4	Fspr cement	P	0.75	Aq	2	L&V = L	120	-1.5	2.57	N/A	
9	4	Fspr cement	P	0.8	Aq	2	L&V = L	119.3	x	x	N/A	
10	4	Fspr cement	P	0.8	Aq	2	L&V = L	113.6	x	x	N/A	
11	9	Qz cement	P	0.8	Aq	2	L&V = L	131.2	-2	3.39	N/A	
12	7	Qz cement	P	0.8	Aq	2	L&V = L	124.6	-2.5	4.18	N/A	
13	8	Qz cement	P	0.8	Aq	2	L&V = L	129.9	-2.3	3.87	N/A	
14	6	Qz cement	P	0.8	Aq	2	L&V = L	123.4	x	x	N/A	
15	8	Qz cement	P	0.8	Aq	2	L&V = L	127.6	x	x	N/A	
16	9	Qz cement	P	0.8	Aq	2	L&V = L	134.6	x	x	N/A	
17	6	Qz cement	P	0.8	Aq	2	L&V = L	138.1	-2.4	4.03	N/A	
18	8	Qz cement	P	0.8	Aq	2	L&V = L	118.2	-2.1	3.55	N/A	
19	9	Qz cement	P	0.8	Aq	2	L&V = L	125.5	x	x	N/A	
20	9	Qz cement	P	0.85	Aq	2	L&V = L	129	-2	3.39	N/A	

Sample Number: *f2, well 6004-17-1, depth 3720-3729*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	13	Fspr cement	P	0.85	Aq	2	L&V = L	95.2	-1.3	2.24	N/A	
2	8	Fspr cement	P	0.8	Aq	2	L&V = L	86.3	-1.8	3.06	N/A	
3	10	Fspr cement	P	0.85	Aq	2	L&V = L	110.2	x	x	N/A	
4	12	Fspr cement	P	0.8	Aq	2	L&V = L	78.4	-1.9	3.23	N/A	
5	11	Fspr cement	P	0.9	Aq	2	L&V = L	93.5	x	x	N/A	
6	10	Fspr cement	P	0.8	Aq	2	L&V = L	89.3	-2.4	4.03	N/A	
7	11	Fspr cement	P	0.85	Aq	2	L&V = L	77.6	x	x	N/A	
8	13	Fspr cement	P	0.8	Aq	2	L&V = L	74.2	-1.1	1.91	N/A	
9	19	Qz cement	P	0.8	Aq	2	L&V = L	117.4	x	x	N/A	
10	18	Qz cement	P	0.85	Aq	2	L&V = L	119.3	x	x	N/A	
11	17	Qz cement	P	0.85	Aq	2	L&V = L	125.2	x	x	N/A	
12	22	Qz cement	P	0.85	Aq	2	L&V = L	124.3	-2.4	4.03	N/A	
13	20	Qz cement	P	0.8	Aq	2	L&V = L	132.1	x	x	N/A	
14	19	Qz cement	P	0.85	Aq	2	L&V = L	130.9	-1.5	2.57	N/A	
15	24	Qz cement	P	0.8	Aq	2	L&V = L	132	-1.7	2.9	N/A	
16	18	Qz cement	P	0.75	Aq	2	L&V = L	123.8	x	x	N/A	
17	18	Qz cement	P	0.85	Aq	2	L&V = L	124.7	-2	3.39	N/A	
18	23	Qz cement	P	0.8	Aq	2	L&V = L	117.4	x	x	N/A	
19	24	Qz cement	P	8	Aq	2	L&V = L	132.9	-1.5	2.57	N/A	
20	19	Qz cement	P	0.8	Aq	2	L&V = L	130.6	-2.1	3.55	N/A	

Sample Number: *f1, well 6004-17-1, depth 3741-3750*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	17	Qz cement	P	0.85	Aq	2	L&V = L	124.7	x	x	N/A	
2	8	Qz cement	P	0.8	Aq	2	L&V = L	131.3	x	x	N/A	
3	11	Qz cement	P	0.8	Aq	2	L&V = L	119.7	-1.8	3.06	N/A	
4	19	Qz cement	P	0.9	Aq	2	L&V = L	135.8	-1.3	2.24	N/A	
5	20	Qz cement	P	0.85	Aq	2	L&V = L	122.9	x	x	N/A	
6	13	Qz cement	P	0.85	Aq	2	L&V = L	133.9	-1.8	3.06	N/A	
7	10	Qz cement	P	0.9	Aq	2	L&V = L	140.8	x	x	N/A	
8	14	Qz cement	P	0.8	Aq	2	L&V = L	126.5	-2.1	3.55	N/A	
9	17	Qz cement	P	0.85	Aq	2	L&V = L	135.3	x	x	N/A	
10	19	Qz cement	P	0.85	Aq	2	L&V = L	137.8	x	x	N/A	
11	6	Fspr cement	P	0.85	Aq	2	L&V = L	84.3	-0.9	1.57	N/A	
12	17	Fspr cement	P	0.85	Aq	2	L&V = L	72.7	-1.3	2.24	N/A	
13	9	Fspr cement	P	0.85	Aq	2	L&V = L	79.3	x	x	N/A	
14	12	Fspr cement	P	0.85	Aq	2	L&V = L	74.1	x	x	N/A	
15	8	Calcite	P	0.75	Aq	2	L&V = L	160.5	-2.8	4.65	N/A	
16	10	Calcite	P	0.8	Aq	2	L&V = L	162.3	-2.4	4.03	N/A	
17	5	Calcite	P	0.8	Aq	2	L&V = L	155.7	-3.1	5.11	N/A	
18	6	Calcite	P	0.7	Aq	2	L&V = L	164.8	-3	4.96	N/A	
19	4	Calcite	P	0.8	Aq	2	L&V = L	170.3	x	x	N/A	
20	7	Calcite	P	0.85	Aq	2	L&V = L	155.2	x	x	N/A	

Sample Number: *f39, well 6004-17-1, depth 3750-3760*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	6	Fspr cement	P	0.8	Aq	2	L&V = L	95.6	-3.1	5.11	N/A	
2	5	Fspr cement	P	0.8	Aq	2	L&V = L	84.3	x	x	N/A	
3	6	Fspr cement	P	0.8	Aq	2	L&V = L	87.2	x	x	N/A	
4	7	Fspr cement	P	0.8	Aq	2	L&V = L	95.2	-2	3.39	N/A	
5	10	Qz cement	P	0.8	Aq	2	L&V = L	134.5	-2.2	3.71	N/A	
6	14	Qz cement	P	0.8	Aq	2	L&V = L	146.7	-1.6	2.74	N/A	
7	7	Qz cement	P	0.8	Aq	2	L&V = L	129.9	x	x	N/A	
8	9	Qz cement	P	0.8	Aq	2	L&V = L	137.4	x	x	N/A	
9	8	Qz cement	P	0.8	Aq	2	L&V = L	128.6	-1.1	1.91	N/A	
10	11	Qz cement	P	0.8	Aq	2	L&V = L	135.6	-1.6	2.74	N/A	
11	16	Qz cement	P	0.8	Aq	2	L&V = L	130	x	x	N/A	
12	10	Qz cement	P	0.8	Aq	2	L&V = L	139.6	x	x	N/A	
13	9	Qz cement	P	0.8	Aq	2	L&V = L	134.7	x	x	N/A	
14	7	Qz cement	P	0.8	Aq	2	L&V = L	132.1	x	x	N/A	
15	8	Qz cement	P	0.8	Aq	2	L&V = L	135.2	-2.1	3.55	N/A	
16	8	Qz cement	P	0.8	Aq	2	L&V = L	145.9	-1.7	2.9	N/A	
17	7	Qz cement	P	0.8	Aq	2	L&V = L	140.2	x	x	N/A	
18	6	Qz cement	P	0.8	Aq	2	L&V = L	140.3	x	x	N/A	
19	12	Qz cement	P	0.8	Aq	2	L&V = L	135.6	-1.8	3.06	N/A	
20	14	Qz cement	P	0.8	Aq	2	L&V = L	121.5	-1.5	2.57	N/A	

Sample Number: *f50, well 6004-17-1, depth 3759-3768*

Calibration Date: *01/01/2007*

NO FLUID INCLUSION WORK POSSIBLE - SAMPLE BLACK AND NO MINERAL PASES VISIBLE DUE TO SMALL GRAIN SIZE.

Sample Number: *f40, well 6004-17-1, depth 3780-3789*

Calibration Date: *01/01/2007*

NO FLUID INCLUSION WORK POSSIBLE - SAMPLE BLACK AND NO MINERAL PASES VISIBLE DUE TO SMALL GRAIN SIZE.

Sample Number: *f3, well 6004-17-1, depth 3789-3801*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	12	Fspr cement	P	0.85	Aq	2	L&V = L	108.4	-2.1	3.55	N/A	
2	14	Fspr cement	P	0.8	Aq	2	L&V = L	111.3	-3.5	5.74	N/A	
3	17	Fspr cement	P	0.85	Aq	2	L&V = L	94.2	-2.8	4.65	N/A	
4	10	Fspr cement	P	0.8	Aq	2	L&V = L	82.7	x	x	N/A	
5	6	Fspr cement	P	0.8	Aq	2	L&V = L	88.9	x	x	N/A	
6	11	Fspr cement	P	0.8	Aq	2	L&V = L	87.4	x	x	N/A	
7	19	Fspr cement	P	0.9	Aq	2	L&V = L	103.2	-2.6	4.34	N/A	
8	12	Fspr cement	P	0.85	Aq	2	L&V = L	101.1	-2.1	3.55	N/A	
9	15	Fspr cement	P	0.75	Aq	2	L&V = L	94.3	x	x	N/A	
10	10	Fspr cement	P	0.8	Aq	2	L&V = L	97.5	x	x	N/A	
11	17	Fspr cement	P	0.8	Aq	2	L&V = L	96.3	x	x	N/A	
12	8	Fspr cement	P	0.85	Aq	2	L&V = L	109	x	x	N/A	
13	21	Qz cement	P	0.9	Aq	2	L&V = L	134.7	-2.9	4.8	N/A	
14	12	Qz cement	P	0.95	Aq	2	L&V = L	145.8	-1.5	2.57	N/A	
15	23	Qz cement	P	0.8	Aq	2	L&V = L	129.6	-1.7	2.9	N/A	
16	16	Qz cement	P	0.75	Aq	2	L&V = L	159.1	x	x	N/A	
17	19	Qz cement	P	0.85	Aq	2	L&V = L	135.7	x	x	N/A	
18	14	Qz cement	P	0.85	Aq	2	L&V = L	144.8	-1.3	2.24	N/A	
19	17	Qz cement	P	0.8	Aq	2	L&V = L	145.9	-2.4	4.03	N/A	
20	15	Qz cement	P	0.85	Aq	2	L&V = L	146.6	x	x	N/A	

Sample Number: *f5, well 6004-17-1, depth 3801-3810*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	12	Fspr cement	P	0.8	Aq	2	L&V = L	111.3	x	x	N/A	
2	6	Fspr cement	P	0.8	Aq	2	L&V = L	104.2	-1.6	2.74	N/A	
3	9	Fspr cement	P	0.85	Aq	2	L&V = L	107.4	-2.5	4.18	N/A	
4	10	Fspr cement	P	0.8	Aq	2	L&V = L	91.5	x	x	N/A	
5	19	Qz cement	P	0.85	Aq	2	L&V = L	145.6	-2.4	4.03	N/A	
6	13	Qz cement	P	0.8	Aq	2	L&V = L	137.3	x	x	N/A	
7	17	Qz cement	P	0.85	Aq	2	L&V = L	151.2	x	x	N/A	
8	13	Qz cement	P	0.8	Aq	2	L&V = L	149.4	-3.8	6.06	N/A	
9	16	Qz cement	P	0.8	Aq	2	L&V = L	140.6	-3.1	5.11	N/A	
10	9	Qz cement	P	0.8	Aq	2	L&V = L	131.5	-2.7	4.49	N/A	
11	21	Qz cement	P	0.75	Aq	2	L&V = L	148.6	-2.9	4.8	N/A	
12	13	Qz cement	P	0.9	Aq	2	L&V = L	134.9	-2.4	4.03	N/A	
13	15	Qz cement	P	0.85	Aq	2	L&V = L	137.5	x	x	N/A	
14	14	Qz cement	P	0.8	Aq	2	L&V = L	139.5	x	x	N/A	
15	18	Qz cement	P	0.85	Aq	2	L&V = L	133.4	x	x	N/A	
16	12	Qz cement	P	0.85	Aq	2	L&V = L	148.1	-2.9	4.8	N/A	
17	13	Qz cement	P	0.8	Aq	2	L&V = L	143.2	x	x	N/A	
18	17	Qz cement	P	0.8	Aq	2	L&V = L	151.1	-3.1	5.11	N/A	
19	19	Qz cement	P	0.85	Aq	2	L&V = L	139.8	x	x	N/A	
20	20	Qz cement	P	0.75	Aq	2	L&V = L	136.4	x	x	N/A	

Sample Number: *f8, well 6005-15-1, depth 2080-2090*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	13	Qz cement	P	0.85	Aq	2	L&V = L	124.5	-2.8	4.65	N/A	
2	17	Qz cement	P	0.85	Aq	2	L&V = L	131.2	-3.4	5.74	N/A	
3	15	Qz cement	P	0.85	Aq	2	L&V = L	120.6	x	x	N/A	
4	11	Qz cement	P	0.85	Aq	2	L&V = L	126.9	x	x	N/A	
5	9	Qz cement	P	0.85	Aq	2	L&V = L	127.4	x	x	N/A	
6	10	Qz cement	P	0.85	Aq	2	L&V = L	126.9	-2.1	3.55	N/A	
7	21	Qz cement	P	0.85	Aq	2	L&V = L	125.3	-1.6	2.74	N/A	
8	12	Qz cement	P	0.85	Aq	2	L&V = L	133.2	x	x	N/A	
9	18	Qz cement	P	0.85	Aq	2	L&V = L	119.8	-1.9	3.23	N/A	
10	14	Qz cement	P	0.85	Aq	2	L&V = L	138.3	x	x	N/A	
11	15	Qz cement	P	0.85	Aq	2	L&V = L	135.6	-2.2	3.71	N/A	
12	13	Qz cement	P	0.85	Aq	2	L&V = L	132.4	-2.8	4.65	N/A	
13	12	Qz cement	P	0.85	Aq	2	L&V = L	133.7	-2.6	4.34	N/A	
14	14	Qz cement	P	0.85	Aq	2	L&V = L	136.1	x	x	N/A	
15	12	Qz cement	P	0.85	Aq	2	L&V = L	132	x	x	N/A	
16	12	Qz cement	P	0.85	Aq	2	L&V = L	142.8	x	x	N/A	
17	16	Qz cement	P	0.85	Aq	2	L&V = L	143.4	-3.2	5.26	N/A	
18	11	Qz cement	P	0.85	Aq	2	L&V = L	132.7	-2.1	3.55	N/A	
19	9	Qz cement	P	0.85	Aq	2	L&V = L	139.6	x	x	N/A	
20	8	Qz cement	P	0.85	Aq	2	L&V = L	133.3	x	x	N/A	

Sample Number: *f43, well 6005-15-1, depth 2841-2851*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	12	Qz cement	P	0.8	Aq	2	L&V = L	134.2	x	x	N/A	
2	9	Qz cement	P	0.8	Aq	2	L&V = L	123.7	x	x	N/A	
3	11	Qz cement	P	0.8	Aq	2	L&V = L	122.8	-1.8	3.06	N/A	
4	11	Qz cement	P	0.8	Aq	2	L&V = L	126.9	-1.2	2.24	N/A	
5	10	Qz cement	P	0.8	Aq	2	L&V = L	124.5	-1.8	3.06	N/A	
6	9	Qz cement	P	0.8	Aq	2	L&V = L	114	-2.2	3.71	N/A	
7	9	Qz cement	P	0.8	Aq	2	L&V = L	112.8	x	x	N/A	
8	9	Qz cement	P	0.8	Aq	2	L&V = L	124.6	x	x	N/A	
9	9	Qz cement	P	0.8	Aq	2	L&V = L	132.3	x	x	N/A	
10	8	Qz cement	P	0.8	Aq	2	L&V = L	125.5	-1.4	2.41	N/A	
11	10	Qz cement	P	0.8	Aq	2	L&V = L	129.7	-1.6	2.74	N/A	
12	6	Qz cement	P	0.8	Aq	2	L&V = L	119.1	-3	4.96	N/A	
13	6	Qz cement	P	0.8	Aq	2	L&V = L	116.7	-3.1	5.11	N/A	
14	6	Qz cement	P	0.8	Aq	2	L&V = L	119.3	x	x	N/A	
15	6	Qz cement	P	0.8	Aq	2	L&V = L	131.9	x	x	N/A	
16	8	Qz cement	P	0.8	Aq	2	L&V = L	128.7	x	x	N/A	
17	7	Qz cement	P	0.8	Aq	2	L&V = L	123.4	x	x	N/A	
18	9	Qz cement	P	0.8	Aq	2	L&V = L	126.7	x	x	N/A	
19	7	Qz cement	P	0.8	Aq	2	L&V = L	120	-2.4	4.03	N/A	
20	7	Qz cement	P	0.8	Aq	2	L&V = L	135.7	-2.6	4.34	N/A	

Sample Number: *f48, well 6005-15-1, depth 2851-2861*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	4	Qz cement	P	0.75	Aq	2	L&V = L	132.8	x	x	N/A	
2	4	Qz cement	P	0.8	Aq	2	L&V = L	144.6	x	x	N/A	
3	5	Qz cement	P	0.8	Aq	2	L&V = L	140.3	x	x	N/A	
4	9	Qz cement	P	0.75	Aq	2	L&V = L	138.9	-2.1	3.55	N/A	
5	7	Qz cement	P	0.75	Aq	2	L&V = L	136.2	-1.6	2.74	N/A	
6	8	Qz cement	P	0.75	Aq	2	L&V = L	138	-2.5	4.18	N/A	
7	7	Qz cement	P	0.75	Aq	2	L&V = L	125.7	-2.1	3.55	N/A	
8	7	Qz cement	P	0.75	Aq	2	L&V = L	137.9	x	x	N/A	
9	7	Qz cement	P	0.75	Aq	2	L&V = L	133.1	x	x	N/A	
10	7	Qz cement	P	0.75	Aq	2	L&V = L	139.4	x	x	N/A	
11	8	Qz cement	P	0.8	Aq	2	L&V = L	128.7	x	x	N/A	
12	6	Qz cement	P	0.8	Aq	2	L&V = L	131.6	-2	3.39	N/A	
13	8	Qz cement	P	0.8	Aq	2	L&V = L	139.5	-2.9	4.8	N/A	
14	9	Qz cement	P	0.8	Aq	2	L&V = L	144.1	-2.3	3.87	N/A	
15	11	Qz cement	P	0.8	Aq	2	L&V = L	142.6	x	x	N/A	
16	7	Qz cement	P	0.8	Aq	2	L&V = L	143.7	x	x	N/A	
17	8	Qz cement	P	0.8	Aq	2	L&V = L	139.2	x	x	N/A	
18	5	Qz cement	P	0.8	Aq	2	L&V = L	121.1	-2.1	3.55	N/A	
19	6	Qz cement	P	0.8	Aq	2	L&V = L	129.8	-2.4	4.03	N/A	
20	4	Qz cement	P	0.75	Aq	2	L&V = L	125.6	-2.7	4.49	N/A	

Sample Number: *f44, well 6005-15-1, depth 3198-3209*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	9	Qz cement	P	0.8	Aq	2	L&V = L	137.9	-1.5	2.57	N/A	
2	4	Qz cement	P	0.8	Aq	2	L&V = L	134.2	-2.2	3.71	N/A	
3	4	Qz cement	P	0.8	Aq	2	L&V = L	141.4	-2.5	4.18	N/A	
4	4	Qz cement	P	0.8	Aq	2	L&V = L	136.7	x	x	N/A	
5	4	Qz cement	P	0.8	Aq	2	L&V = L	140	x	x	N/A	
6	4	Qz cement	P	0.8	Aq	2	L&V = L	143.2	x	x	N/A	
7	6	Qz cement	P	0.8	Aq	2	L&V = L	145.9	-1.9	3.23	N/A	
8	7	Qz cement	P	0.8	Aq	2	L&V = L	148.7	-2	3.39	N/A	
9	6	Qz cement	P	0.8	Aq	2	L&V = L	143.2	-3	4.96	N/A	
10	6	Qz cement	P	0.8	Aq	2	L&V = L	130.6	x	x	N/A	
11	5	Qz cement	P	0.8	Aq	2	L&V = L	147.4	x	x	N/A	
12	7	Qz cement	P	0.8	Aq	2	L&V = L	134.2	x	x	N/A	
13	7	Qz cement	P	0.8	Aq	2	L&V = L	139	x	x	N/A	
14	7	Qz cement	P	0.8	Aq	2	L&V = L	134.6	x	x	N/A	
15	7	Qz cement	P	0.8	Aq	2	L&V = L	137.5	x	x	N/A	
16	7	Qz cement	P	0.8	Aq	2	L&V = L	138.4	x	x	N/A	
17	6	Qz cement	P	0.8	Aq	2	L&V = L	139.3	-1.8	3.06	N/A	
18	4	Qz cement	P	0.8	Aq	2	L&V = L	137.4	-2.5	4.18	N/A	
19	5	Qz cement	P	0.8	Aq	2	L&V = L	138.4	-2.2	3.71	N/A	
20	8	Qz cement	P	0.8	Aq	2	L&V = L	144.6	-2.3	3.87	N/A	

Sample Number: *f23, well 6005-15-1, depth 3209-3219*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	6	Qz cement	P	0.75	Aq	2	L&V = L	143.2	-2.1	3.55	N/A	
2	6	Qz cement	P	0.8	Aq	2	L&V = L	139.6	x	x	N/A	
3	7	Qz cement	P	0.8	Aq	2	L&V = L	147.4	x	x	N/A	
4	5	Qz cement	P	0.8	Aq	2	L&V = L	130.2	x	x	N/A	
5	4	Qz cement	P	0.8	Aq	2	L&V = L	136.9	x	x	N/A	
6	4	Qz cement	P	0.8	Aq	2	L&V = L	137.2	-2.4	4.03	N/A	
7	8	Qz cement	P	0.8	Aq	2	L&V = L	133.9	-2.3	3.87	N/A	
8	9	Qz cement	P	0.75	Aq	2	L&V = L	140.4	-1.9	3.23	N/A	
9	5	Qz cement	P	0.85	Aq	2	L&V = L	144.9	x	x	N/A	
10	4	Qz cement	P	0.75	Aq	2	L&V = L	142.1	-2.6	4.34	N/A	
11	8	Qz cement	P	0.75	Aq	2	L&V = L	147	-2.4	4.03	N/A	
12	7	Qz cement	P	0.75	Aq	2	L&V = L	145.3	x	x	N/A	
13	9	Qz cement	P	0.75	Aq	2	L&V = L	149.2	x	x	N/A	
14	9	Qz cement	P	0.75	Aq	2	L&V = L	135.7	x	x	N/A	
15	9	Qz cement	P	0.75	Aq	2	L&V = L	132.4	-3.1	5.11	N/A	
16	9	Qz cement	P	0.75	Aq	2	L&V = L	139.8	-0.4	0.71	N/A	
17	7	Qz cement	P	0.8	Aq	2	L&V = L	140.1	-2.5	4.18	N/A	
18	6	Qz cement	P	0.8	Aq	2	L&V = L	149.6	x	x	N/A	
19	7	Qz cement	P	0.8	Aq	2	L&V = L	142.8	x	x	N/A	
20	7	Qz cement	P	0.8	Aq	2	L&V = L	143	-2.1	3.55	N/A	

Sample Number: *f10, well 6005-15-1, depth 3483-3492*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	17	Qz cement	P	0.85	Aq	2	L&V = L	136.9	-3.4	5.56	N/A	
2	11	Qz cement	P	0.85	Aq	2	L&V = L	137.4	x	x	N/A	
3	13	Qz cement	P	0.85	Aq	2	L&V = L	132.5	-2.7	4.49	N/A	
4	16	Qz cement	P	0.85	Aq	2	L&V = L	143.9	x	x	N/A	
5	14	Qz cement	P	0.85	Aq	2	L&V = L	134.7	-2.6	4.34	N/A	
6	21	Qz cement	P	0.85	Aq	2	L&V = L	135.2	-3.1	5.11	N/A	
7	22	Qz cement	P	0.85	Aq	2	L&V = L	136.3	x	x	N/A	
8	19	Qz cement	P	0.85	Aq	2	L&V = L	135.9	x	x	N/A	
9	16	Qz cement	P	0.85	Aq	2	L&V = L	145.2	-2.4	4.03	N/A	
10	14	Qz cement	P	0.85	Aq	2	L&V = L	128.7	x	x	N/A	
11	9	Qz cement	P	0.85	Aq	2	L&V = L	122.3	x	x	N/A	
12	11	Qz cement	P	0.85	Aq	2	L&V = L	130.6	-2.2	3.71	N/A	
13	13	Qz cement	P	0.85	Aq	2	L&V = L	135.7	x	x	N/A	
14	14	Qz cement	P	0.85	Aq	2	L&V = L	141.1	x	x	N/A	
15	15	Qz cement	P	0.85	Aq	2	L&V = L	145.9	-2.3	3.87	N/A	
16	16	Qz cement	P	0.85	Aq	2	L&V = L	132	x	x	N/A	
17	12	Qz cement	P	0.85	Aq	2	L&V = L	133.5	-1.9	3.23	N/A	
18	16	Qz cement	P	0.85	Aq	2	L&V = L	134.8	x	x	N/A	
19	19	Qz cement	P	0.85	Aq	2	L&V = L	136.9	-2.4	4.03	N/A	
20	14	Qz cement	P	0.85	Aq	2	L&V = L	137.4	-2.7	4.49	N/A	

Sample Number: *f24, well 6005-15-1, depth 3699-3710*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	10	Qz cement	P	0.8	Aq	2	L&V = L	145.6	-2.7	4.49	N/A	
2	11	Qz cement	P	0.8	Aq	2	L&V = L	134.7	x	x	N/A	
3	9	Qz cement	P	0.8	Aq	2	L&V = L	140.1	-2.3	3.87	N/A	
4	6	Qz cement	P	0.8	Aq	2	L&V = L	155.7	-2.2	3.71	N/A	
5	6	Qz cement	P	0.8	Aq	2	L&V = L	143.2	x	x	N/A	
6	7	Qz cement	P	0.8	Aq	2	L&V = L	139.5	x	x	N/A	
7	4	Qz cement	P	0.8	Aq	2	L&V = L	135.2	x	x	N/A	
8	4	Qz cement	P	0.8	Aq	2	L&V = L	139.4	-2.3	3.87	N/A	
9	4	Qz cement	P	0.8	Aq	2	L&V = L	130.6	-2.1	3.55	N/A	
10	4	Qz cement	P	0.8	Aq	2	L&V = L	149.2	x	x	N/A	
11	7	Qz cement	P	0.8	Aq	2	L&V = L	145.7	x	x	N/A	
12	8	Qz cement	P	0.8	Aq	2	L&V = L	143.5	-1.9	3.23	N/A	
13	6	Qz cement	P	0.8	Aq	2	L&V = L	146.3	-1.8	3.06	N/A	
14	9	Qz cement	P	0.8	Aq	2	L&V = L	140.6	-2.4	4.03	N/A	
15	3	Qz cement	P	0.8	Aq	2	L&V = L	148	x	x	N/A	
16	7	Qz cement	P	0.8	Aq	2	L&V = L	142.4	x	x	N/A	
17	8	Qz cement	P	0.8	Aq	2	L&V = L	137.5	x	x	N/A	
18	9	Qz cement	P	0.8	Aq	2	L&V = L	139	x	x	N/A	
19	8	Qz cement	P	0.8	Aq	2	L&V = L	134.7	-2.5	4.18	N/A	
20	8	Qz cement	P	0.8	Aq	2	L&V = L	140.2	-2	3.39	N/A	

Sample Number: *f46, well 6005-15-1, depth 3711-3720*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	6	Qz cement	P	0.85	Aq	2	L&V = L	146.7	-2.4	4.03	N/A	
2	7	Qz cement	P	0.85	Aq	2	L&V = L	144.3	x	x	N/A	
3	5	Qz cement	P	0.85	Aq	2	L&V = L	138.7	x	x	N/A	
4	5	Qz cement	P	0.85	Aq	2	L&V = L	156.8	x	x	N/A	
5	6	Qz cement	P	0.85	Aq	2	L&V = L	155.4	x	x	N/A	
6	6	Qz cement	P	0.85	Aq	2	L&V = L	150.2	x	x	N/A	
7	6	Qz cement	P	0.85	Aq	2	L&V = L	148.2	x	x	N/A	
8	6	Qz cement	P	0.85	Aq	2	L&V = L	144.6	x	x	N/A	
9	6	Qz cement	P	0.85	Aq	2	L&V = L	149.7	x	x	N/A	
10	6	Qz cement	P	0.85	Aq	2	L&V = L	139.7	x	x	N/A	
11	7	Qz cement	P	0.85	Aq	2	L&V = L	155.6	-2.8	4.65	N/A	
12	9	Qz cement	P	0.85	Aq	2	L&V = L	149.7	-2.7	4.49	N/A	
13	6	Qz cement	P	0.85	Aq	2	L&V = L	143.2	-1.5	2.57	N/A	
14	5	Qz cement	P	0.85	Aq	2	L&V = L	139.6	-1.8	3.06	N/A	
15	6	Qz cement	P	0.85	Aq	2	L&V = L	149.2	-2	3.39	N/A	
16	8	Qz cement	P	0.85	Aq	2	L&V = L	151.7	-2.2	3.71	N/A	
17	7	Qz cement	P	0.85	Aq	2	L&V = L	154.1	-2.6	4.34	N/A	
18	6	Qz cement	P	0.85	Aq	2	L&V = L	148.4	-2.4	4.03	N/A	
19	5	Qz cement	P	0.85	Aq	2	L&V = L	149.3	-2.3	3.87	N/A	
20	4	Qz cement	P	0.85	Aq	2	L&V = L	144.4	-1.9	3.23	N/A	

Sample Number: *f45, well 6005-15-1, depth 3930-3939*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	5	Qz cement	P	0.8	Aq	2	L&V = L	147.9	-2.6	4.34	N/A	
2	5	Qz cement	P	0.9	Aq	2	L&V = L	155.6	-2.2	3.71	N/A	
3	5	Qz cement	P	0.9	Aq	2	L&V = L	154.3	x	x	N/A	
4	6	Qz cement	P	0.75	Aq	2	L&V = L	141.7	x	x	N/A	
5	13	Qz cement	P	0.75	Aq	2	L&V = L	164.2	x	x	N/A	
6	7	Qz cement	P	0.8	Aq	2	L&V = L	145.3	-3.1	5.11	N/A	
7	6	Qz cement	P	0.85	Aq	2	L&V = L	149.8	-2.8	4.65	N/A	
8	7	Qz cement	P	0.8	Aq	2	L&V = L	141.3	-1.9	3.23	N/A	
9	7	Qz cement	P	0.8	Aq	2	L&V = L	147.6	x	x	N/A	
10	7	Qz cement	P	0.8	Aq	2	L&V = L	139.5	-2.4	4.03	N/A	
11	7	Qz cement	P	0.8	Aq	2	L&V = L	135.9	-2.6	4.34	N/A	
12	9	Qz cement	P	0.8	Aq	2	L&V = L	162.4	x	x	N/A	
13	8	Qz cement	P	0.8	Aq	2	L&V = L	158.7	x	x	N/A	
14	6	Qz cement	P	0.8	Aq	2	L&V = L	151.9	x	x	N/A	
15	5	Qz cement	P	0.85	Aq	2	L&V = L	152.4	x	x	N/A	
16	8	Qz cement	P	0.85	Aq	2	L&V = L	156.7	-2.7	4.49	N/A	
17	6	Qz cement	P	0.85	Aq	2	L&V = L	143.3	-2.9	4.8	N/A	
18	5	Qz cement	P	0.8	Aq	2	L&V = L	155	x	x	N/A	
19	4	Qz cement	P	0.8	Aq	2	L&V = L	159.4	x	x	N/A	
20	4	Qz cement	P	0.8	Aq	2	L&V = L	151.1	-2.7	4.49	N/A	

Sample Number: *f7, well 6005-15-1, depth 3939-3948*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	5	Qz cement	P	0.85	Aq	2	L&V = L	145.7	-2.8	4.65	N/A	
2	11	Qz cement	P	0.85	Aq	2	L&V = L	126.4	x	x	N/A	
3	13	Qz cement	P	0.85	Aq	2	L&V = L	132.5	x	x	N/A	
4	17	Qz cement	P	0.85	Aq	2	L&V = L	133.8	-3.2	5.26	N/A	
5	11	Qz cement	P	0.85	Aq	2	L&V = L	139.5	-1.9	3.23	N/A	
6	10	Qz cement	P	0.85	Aq	2	L&V = L	140	x	x	N/A	
7	15	Qz cement	P	0.85	Aq	2	L&V = L	135.8	-2.5	4.18	N/A	
8	21	Qz cement	P	0.85	Aq	2	L&V = L	132.4	x	x	N/A	
9	12	Qz cement	P	0.85	Aq	2	L&V = L	133.9	-2.9	4.8	N/A	
10	14	Qz cement	P	0.85	Aq	2	L&V = L	137.4	-2.1	3.55	N/A	
11	18	Qz cement	P	0.85	Aq	2	L&V = L	128.6	-1.7	2.9	N/A	
12	16	Qz cement	P	0.85	Aq	2	L&V = L	125.1	x	x	N/A	
13	13	Qz cement	P	0.85	Aq	2	L&V = L	139.1	x	x	N/A	
14	12	Qz cement	P	0.85	Aq	2	L&V = L	145.2	x	x	N/A	
15	8	Qz cement	P	0.85	Aq	2	L&V = L	143.1	x	x	N/A	
16	4	Qz cement	P	0.85	Aq	2	L&V = L	149.5	-1.8	3.06	N/A	
17	6	Qz cement	P	0.85	Aq	2	L&V = L	137.7	-2.3	3.87	N/A	
18	9	Qz cement	P	0.85	Aq	2	L&V = L	139.4	x	x	N/A	
19	11	Qz cement	P	0.85	Aq	2	L&V = L	132.1	-3.5	5.74	N/A	
20	12	Qz cement	P	0.85	Aq	2	L&V = L	139.6	x	x	N/A	

Sample Number: *f36, well 6005-15-1, depth 3960-3969*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	9	Qz cement	P	0.8	Aq	2	L&V = L	156.7	-2.2	3.71	N/A	
2	6	Qz cement	P	0.8	Aq	2	L&V = L	144.1	-2.3	3.87	N/A	
3	5	Qz cement	P	0.8	Aq	2	L&V = L	140.8	x	x	N/A	
4	7	Qz cement	P	0.8	Aq	2	L&V = L	143.2	x	x	N/A	
5	8	Qz cement	P	0.8	Aq	2	L&V = L	147.8	-2.4	4.03	N/A	
6	8	Qz cement	P	0.8	Aq	2	L&V = L	149.2	-2.6	4.34	N/A	
7	9	Qz cement	P	0.8	Aq	2	L&V = L	141.4	x	x	N/A	
8	9	Qz cement	P	0.8	Aq	2	L&V = L	139.8	x	x	N/A	
9	9	Qz cement	P	0.8	Aq	2	L&V = L	156.7	x	x	N/A	
10	9	Qz cement	P	0.8	Aq	2	L&V = L	154.2	x	x	N/A	
11	8	Qz cement	P	0.8	Aq	2	L&V = L	150.3	x	x	N/A	
12	6	Qz cement	P	0.8	Aq	2	L&V = L	150.1	-1.3	2.24	N/A	
13	5	Qz cement	P	0.8	Aq	2	L&V = L	154.8	-2.6	4.34	N/A	
14	4	Qz cement	P	0.8	Aq	2	L&V = L	153.2	-2.4	4.03	N/A	
15	7	Qz cement	P	0.8	Aq	2	L&V = L	155.7	-2.4	4.03	N/A	
16	9	Qz cement	P	0.8	Aq	2	L&V = L	159.6	-2.4	4.03	N/A	
17	7	Qz cement	P	0.8	Aq	2	L&V = L	139.6	x	x	N/A	
18	6	Qz cement	P	0.8	Aq	2	L&V = L	145.2	x	x	N/A	
19	5	Qz cement	P	0.8	Aq	2	L&V = L	143.6	x	x	N/A	
20	5	Qz cement	P	0.8	Aq	2	L&V = L	149.7	-2.7	4.49	N/A	

Sample Number: *f6, well 6005-15-1, depth 3981-3990*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	8	Qz cement	P	0.85	Aq	2	L&V = L	128.9	-2.1	3.55	N/A	
2	10	Qz cement	P	0.85	Aq	2	L&V = L	123.4	x	x	N/A	
3	13	Qz cement	P	0.85	Aq	2	L&V = L	135.9	x	x	N/A	
4	9	Qz cement	P	0.85	Aq	2	L&V = L	130.2	x	x	N/A	
5	17	Qz cement	P	0.85	Aq	2	L&V = L	134.7	-2.8	4.65	N/A	
6	12	Qz cement	P	0.85	Aq	2	L&V = L	141.2	-1.5	2.57	N/A	
7	11	Qz cement	P	0.85	Aq	2	L&V = L	128.7	x	x	N/A	
8	12	Qz cement	P	0.85	Aq	2	L&V = L	133.6	-3.2	5.26	N/A	
9	12	Qz cement	P	0.85	Aq	2	L&V = L	135.9	-2.5	4.18	N/A	
10	16	Qz cement	P	0.85	Aq	2	L&V = L	130.2	x	x	N/A	
11	14	Qz cement	P	0.85	Aq	2	L&V = L	131	x	x	N/A	
12	15	Qz cement	P	0.85	Aq	2	L&V = L	140.7	x	x	N/A	
13	17	Qz cement	P	0.85	Aq	2	L&V = L	124.6	-2	3.39	N/A	
14	19	Qz cement	P	0.85	Aq	2	L&V = L	132.4	-2.9	4.8	N/A	
15	9	Qz cement	P	0.85	Aq	2	L&V = L	139.7	-3.6	5.86	N/A	
16	8	Qz cement	P	0.85	Aq	2	L&V = L	133.5	-2.8	4.65	N/A	
17	10	Qz cement	P	0.85	Aq	2	L&V = L	133.2	-1.9	3.23	N/A	
18	12	Qz cement	P	0.85	Aq	2	L&V = L	129.6	x	x	N/A	
19	11	Qz cement	P	0.85	Aq	2	L&V = L	142.8	x	x	N/A	
20	12	Qz cement	P	0.85	Aq	2	L&V = L	135.4	x	x	N/A	

Sample Number: *f9, well 6005-15-1, depth 3999-4008*

Calibration Date: *01/01/2007*

	Inclusion size (microns)	Mineral host	Timing (primary/secondary/ PS)	Fill %age (liquid)	Composition (Aq/oil)	Phase No.	Phase change on homogenization	Th (degrees celsius)	Tm (degrees celsius)	Salinity (wt. % NaCl eq.)	Fluorescence colour	Additional comments
1	6	Qz cement	P	0.85	Aq	2	L&V = L	141.2	x	x	N/A	
2	5	Qz cement	P	0.85	Aq	2	L&V = L	144.3	x	x	N/A	
3	7	Qz cement	P	0.85	Aq	2	L&V = L	152.6	x	x	N/A	
4	9	Qz cement	P	0.85	Aq	2	L&V = L	129.3	-2.4	4.03	N/A	
5	12	Qz cement	P	0.85	Aq	2	L&V = L	134.7	-3.1	5.11	N/A	
6	11	Qz cement	P	0.85	Aq	2	L&V = L	145.6	x	x	N/A	
7	10	Qz cement	P	0.85	Aq	2	L&V = L	142.3	x	x	N/A	
8	9	Qz cement	P	0.85	Aq	2	L&V = L	147.9	-2.7	4.49	N/A	
9	9	Qz cement	P	0.85	Aq	2	L&V = L	135.9	x	x	N/A	
10	9	Qz cement	P	0.85	Aq	2	L&V = L	137.2	-2	3.39	N/A	
11	9	Qz cement	P	0.85	Aq	2	L&V = L	140.1	x	x	N/A	
12	8	Qz cement	P	0.85	Aq	2	L&V = L	143.2	x	x	N/A	
13	6	Qz cement	P	0.85	Aq	2	L&V = L	144.8	-1.9	3.23	N/A	
14	5	Qz cement	P	0.85	Aq	2	L&V = L	146.7	x	x	N/A	
15	8	Qz cement	P	0.85	Aq	2	L&V = L	148.9	x	x	N/A	
16	9	Qz cement	P	0.85	Aq	2	L&V = L	143.2	-2.8	4.65	N/A	
17	11	Qz cement	P	0.85	Aq	2	L&V = L	143.6	-3.3	5.41	N/A	
18	8	Qz cement	P	0.85	Aq	2	L&V = L	140	-3.4	5.56	N/A	
19	7	Qz cement	P	0.85	Aq	2	L&V = L	141.1	-2.9	4.8	N/A	
20	9	Qz cement	P	0.85	Aq	2	L&V = L	132.7	-3	4.96	N/A	