

## Summary report

Wellbore: 15/9-F-15

Period: 2008-09-20 00:00 - 2008-09-21 00:00

Status:	normal
Report creation time:	2018-05-03 13:52
Report number:	21
Days Ahead/Behind (+/-):	1.2
Operator:	StatoilHydro
Rig Name:	MÆRSK INSPIRER
Drilling contractor:	Maersk Drilling
Spud Date:	2008-10-24 00:00
Wellbore type:	
Elevation RKB-MSL (m):	54.9
Water depth MSL (m):	91
Tight well:	Y
HPHT:	Y
Temperature (I):	
Pressure (I):	
Date Well Complete:	2008-12-11

Dist Drilled (m):	-999.99
Penetration rate (m/h):	-999.99
Hole Dia (in):	12.25
Pressure Test Type:	formation integrity test
Formation strength (g/cm3):	1.5
Dia Last Casing (I):	

Depth at Kick Off mMD:	
Depth at Kick Off mTVD:	
Depth mMd:	1381
Depth mTVD:	1349
Plug Back Depth mMD:	
Depth at formation strength mMD:	1381
Depth At Formation Strength mTVD:	1349
Depth At Last Casing mMD:	1368.4
Depth At Last Casing mTVD:	1340.4

### Summary of activities (24 Hours)

Discussed fishing alternatives and way forward. Successfully entered lost drillstring with standard DP thread, made up coupling with TDS. Worked string and found free to move. Made plans for continuing displacement to 1,44 sg OBM. Displaced well to OBM. POOH and worked through restriction at 1357 m MD. Not able to trip due to problems with ZMS system. Lined up and circulated well at 3500 lpm, took large amounts of cuttings over shakers. Had power black out on platform. Continued troubleshooting ZMS - not able to remedy. POOH to 1117 m MD at reduced speed.

### Summary of planned activities (24 Hours)

POOH with 17 1/2" drilling BHA. Make up 12 1/4" drilling BHA and RIH with same.

### Operations

Start time	End time	End Depth mMD	Main - Sub Activity	State	Remark
00:00	00:30	1368	drilling -- circulating conditioning	ok	Displaced out pill with seawater. Meanwhile started mixing new LCM pill.
00:30	02:00	1368	drilling -- circulating conditioning	ok	Mixed LCM pill. Had problems with plugged auger screw in dry additive system. Added calcarb and stealseal by manual means. Meanwhile circulated hole at 2000 lpm inside 20" casing.
02:00	02:30	1338	drilling -- circulating conditioning	ok	Pumped 9 m3 LCM at 2000 lpm. Chased LCM with 19 m3 seawater. POOH from 1381 to 1338 m MD when spotting the last 4 m3 of LCM. After shutting down pumps, experienced up to 30 MT overpull in interval 1360 to 1350 m MD. Came free to normal weight around 1350 m MD. Pulled back to 1338 m MD.
02:30	04:00	1338	formation evaluation -- rft/fit	ok	Lined up cement unit and verified line up down drillstring and in kill line on BOP. Performed line test to 100 bar / 5 min - ok. Closed BOP. Filled system with 1,8 m3 seawater - zeroed volume counter at 5 bar. Performed fit to 1,50 EMW by pressurising up on well to 64 bar at 100 lpm. Held FIT for 10 min - 1,6 bar leak off. Volume pumped and bled back 972/910 liter.  ***Operations transferred to F-15S***
04:00	04:30	1338	drilling -- circulating conditioning	ok	Flowchecked well - well static. Held toolbox talk prior to displacing well to OBM.
04:30	05:15	1381	drilling -- circulating conditioning	ok	RIH from 1338 m to 1380 m MD with 17 1/2" BHA. Started pumping 1,44 sg OBM. Stepped up rate in increments to 3400 lpm / SPP 75 bar - verified returns. Rotated at 30 rpm / torque ~12 k Nm. After approx 34 m3 pumped observed pack off tendencies with SPP peaking rapidly to 180 bar. Stopped pumping. Trapped pressure on standpipe 32 bar. Bled off standpipe pressure.
05:15	06:00	1381	interruption -- fish	ok	Attempted to work string free. Not able to come down - string at TD. Attempted to come up - functioned jar twice. Attempted to work string free by applying torque up to 40 kNm and overpull of 40 MT. Made way from 1381 m to 1376 m MD. Attempted to pump - hole still packed off. Bled off 27 bar pressure trapped on standpipe and heard loud roaring sound. Lost string weight - went to just above block weight. POOH with 5 1/2" DP and found string screwed out underneath 6 m drilling pup joint. Laid out pup joint - found no damage on threads.
06:00	06:45	0	interruption -- fish	ok	Discussed fishing alternatives and way forward.
06:45	07:00	0	interruption -- fish	ok	Held pre-job meeting for attempting to screw into drillpipe.
07:00	07:30	42	interruption -- fish	ok	1RIH with 5 1/2" DP. Tagged fish at 41,6 m MD indicating that drillstring had fallen to the bottom of the well.
07:30	08:00	42	interruption -- fish	ok	Attempted to screw into DP coupling at 41,6 m MD - negative. Meanwhile traced fishing equipment.
08:00	09:15	42	interruption -- fish	ok	Removed auto slips from rotary. Pulled DP to different positions relative to wellcenter in attempt to enter threads in drillstring. Entered DP thread successfully. Meanwhile traced fishing equipment.
09:15	09:30	1380	interruption -- fish	ok	Made up DP coupling at 41,6 m MD with topdrive. Increased torque in increments of 5 kNm to a total of 45 kNm. String broke free at 45 kNm.
09:30	09:45	1380	drilling -- circulating conditioning	ok	Installed auto slips in rotary.
09:45	10:00	1380	drilling -- circulating conditioning	ok	Picked up string weight ~120 MT. Observed pipe free to move in intervall 1381 to 1372 m MD without applying overpull. Rotated string with 10 rpm / ~10 kNm.
10:00	11:45	1372	drilling -- circulating conditioning	ok	Made plans for regaining circulation and continue displacement to OBM. Made plans for routing contaminated returns back to pits. Meanwhile rotated string with 10 rpm / ~10 kNm.
11:45	13:30	1372	drilling -- circulating conditioning	ok	Started filling string which was partly empty due to u-tubing. Verified returns. Stepped up rate to 1500 lpm / SPP 5 bar. Routed returns back to pits.
13:30	14:45	1372	drilling -- circulating conditioning	ok	Caught up with u-tube after pumping approx 60 m3. Stepped up circulation rate in increments to 2900 lpm / SPP 105 bar. Total volume of OBM pumped 253 m3.
14:45	15:45	1357	drilling -- drill	ok	POOH with 17 1/2" drilling BHA from 1372 m to 1357 m MD. Experienced 5-6 MT overpull when pulling bit through shoe at 1368 m MD. Experienced 12-15 MT overpull at 1357 m MD, dept h corresponding to casing coupling between shoe joint and intermediate joint relative to near bit stab in BHA.
15:45	17:30	1357	drilling -- drill	ok	Made up TDS. Broke circulation and stepped up rate in increments to 2000 lpm / SPP 55 bar. Made several attempts to pass restriction with and without rotation - negative.
17:30	18:45	1357	drilling -- drill	ok	Set torque limit to 25 kNm. Set rotation at 15 rpm and worked restriction with ~5MT overpull. Observed increasing torque fluctuating between 7 and 25 kNm.

18:45	19:00	1355	drilling -- drill	ok	Came through restriction at 1357 m MD. Worked new restriction at 1355 m with overpull and broke through. POOH to 1337 m MD.
19:00	19:30	1337	drilling -- drill	ok	Broke, inspected and racked back stand used for fishing drillstring.
19:30	19:45	1337	drilling -- drill	ok	Flowchecked well - static. Rebooted VICIS system due to problems with ZMS.
19:45	20:15	1329	drilling -- drill	ok	Inspected threads on DP coupling in RT- found some damage / scoring. POOH with DP single to 1329 m MD. Observed gain in triptank indicating swabbing when pulling single. Flowchecked - well static. Broke out single and laid out. Picked up new DP single and made up to stand.
20:15	21:15	1297	drilling -- drill	ok	Made up TDS. Emptied triptanks. POOH with 17 1/2" BHA from 1329 m to 1297 m MD while pumping at 1500 lpm / SPP 26 bar. Prevailing problems with ZMS / VICIS / control system.
21:15	22:00	1297	interruption -- other	ok	Troubleshoot ZMS / VICIS / control system.
22:00	22:30	1297	drilling -- circulating conditioning	ok	Broke and racked back stand. Made up TDS to string for circulating on well due to swabbing and troubleshooting ZMS / VICIS / control system.
22:30	00:00	1297	drilling -- circulating conditioning	ok	Broke circulation and stepped up rate to 2500 lpm / SPP 82 bar. Observed sudden drop in pump pressure of 8 bar after pumping for 10 mins. Increased pump rate to 3500 lpm / SPP 131 bar. Observed steady flow of LCM, clays and rubber over shakers. Also found a few small chunks of cement. Meanwhile troubleshoot ZMS / VICIS / control system.

Equipment Failure Information

Start time	Depth mMD	Depth mTVD	Sub Equip - Syst Class	Operation Downtime (min)	Equipment Repaired	Remark
00:00	1355		drill floor -- drilling control	0	00:00	Black out on VICIS system. Problems with drilling controls .

Pore Pressure

Time	Depth mMD	Depth TVD	Equ Mud Weight (g/cm3)	Reading
00:00	1381		.99	estimated

Stratigraphic Information

Depth to Top of Formation mMD	Depth to Top of Formation mTVD	Description
1088.8	1074.6	Hordaland Gp
1198.7	1179.4	Skade Fm
848.2	842.4	Utsira Fm