

**Transcription of Brian Morel interview notes**

commenced 1040 hrs 27-Apr 2010

panel: Rex Anderson, Matt Lucas, Jim Wetherbee, Warren Winters

**Opening discussion:**

prior experience Anadarko Basin (challenge), Mad Dog (challenge), planning Macondo was on rig for cleanout run (Thu), stayed thru Tue AM

at start of prod hole had high FIT (formation integrity test) above OB (overburden) once drlg prod hole encountered losses, so reduced MW (mud weight) from 14.5 to 14.3 ppg

while drlg a sand zone Geotap showed 14.12, 14.16 ppg formation pressure

while drlg a deeper producing sand Geotap showed 12.6 ppg, originally thought low hence a tool error but later confirmed correct

while drlg a subsequent sand, drlg progress stopped (suspected underreamer failure)

while losing 300-400 bbl/hr mud

pumped emergency lost circulation material without improvement

pulled into marine drilling riser, reduced mud weight, pumped Formaset

losses stopped holding 14.0 ppg mud (surface) 14.2 ppg (bottomhole due to compressibility)

ran new bottomhole assembly and drld 100 ft of rathole to provide room for logging tools

downhole ESD 14.16-14.2 ppg

logging went smoothly but rotary sidewall coring experienced differential pressure problems

encountered bridges at 12,272' and 12,280'

recorded 1100 units gas on bottoms-up, eventually decreased to 20-30 units

pumped out of hole and flow-checked at liner top

ran ca. 5800 ft 7" casing crossed-over to 9-7/8" casing

bought 7" casing from Nexen due to short lead-time

the XO came from R&M Machine

circulated, converted float equipment, diverter closed without issue

difficulty converting Weatherford float equipment but Weatherford rep. was not on rig

so Allamon rep. recommended procedures to convert

called Houston (J. Guide) thinking reamer shoe was plugged so staged up pumping to clear shoe

1 bpm showed 125 psi, 4 bpm showed 400 psi which seemed low vs. modeled pressures

closed annular, pumped down C&K lines, pumped down DP and things looked okay

decided rig standpipe pressure gauge was incorrect

7bbbls, 20bbbls of 14.3 spacer, 5bbbls cement job, 39 foam, 7 shoe track, 20 bbbls spacer, 2bbbls 4/m

modeled cement job in advance w/EPT assistance

did not see bottom dart release, attributed to calculation error by Allamon

saw top plug release

standpipe pressure and cementing unit pressure agreed but both were several hundred psi below model

saw 7" plug pass thru XO

EXHIBIT # 07

WIT: \_\_\_\_\_

saw bottom plug land 9 bbl ahead of plan  
saw top plug land per plan  
bled back and observed normal "no flow" which was actually a trickle attributed to  
"lines cleaning up"  
next released from Drill Quip hanger/seal assembly  
6 turns to right to release  
pressure to 4 ksi, then 10 ksi for 10 sec to set seal assembly then held 6.7 ksi  
tested for 1 hr vs. 5 min. as planned because pressure was observed decreasing ca. 5  
psi/min throughout test  
sheared out running tool, pulled 10 ft above wellhead and circulated  
stabbed running tool in wellhead, applied 10 ksi for 10 sec, then held 6.5 ksi losing 5  
psi/min eventually reducing to 4 psi/min for 10 min.  
went to bed, awoke next AM  
wrote operations notes on negative test procedure, spoke to WSL & mud engineer  
about it for input & understanding  
next contact learned rig on fire

**Upon later review:**

there are questions around the negative test  
cementing unit was lined up to drill pipe to observe pressure  
flowed back to either choke or kill line  
saw 1400 psi on drill pipe so expected pressure or flow to cementing unit (seawater in  
line)  
did not observe flow so concluded something must be plugged  
displaced from 8300' to mudline to set cement plug  
to run lockdown sleeve on same run to have at least 100 klb weight below lockdown  
sleeve  
there was worrying on rig about the next operation (PxA on Nile)  
were attempting concurrent activities  
were planning riser cleanout run

**Inquiry about rig communications culture:**

rig is performance driven with strong history & record of safety & drilling performance  
some operations are unfamiliar to the rig such as PxA on Nile  
TxA is standard having run production casing before  
no BP safety rep. on rig anymore  
TO safety onboard, did observe that they do tape off before every pressure test, lift  
lines operated properly, safety meetings conducted  
nothing sensed out of ordinary that day  
were pumping and cleaning out mud pits  
zero TIR and proud of that  
emphasis on staying focused at all times  
stop the job mentality, free to ask for clarity  
John Guide and David Sims have been instrumental in ensuring uptake of BP safety  
culture by 3rd party personnel

**Inquiry about nitrified cement job:**

normal cement slurry is up to 16.9 ppg but working with fracture gradient of 16.1 ppg  
originally thought to be 15.1 ppg  
formation was only tested to 14.5 ppg  
thought loss zone was at bottom of sands

15% N2 foam reduces density of 16.7 ppg cement to 14.5 ppg  
14.5 ppg cement plus base oil provided needed 14.2 ppg hydrostatic pressure in annulus  
MOC in place for N2 cement job  
Halliburton predicted 15.0 ppg EMW without base oil in annulus

Noticed cement job originally planned incorrectly relative to subsequent MDT data  
EPT cementing expert advice led to 14.2 ppg design basis  
purposely designed top of cement to be below 9-7/8" casing  
used caliper data to compute hole volumes  
top of cement designed to be 500 ft above 17,800' sand per MMS requirement  
circulating cement inside narrow 9-7/8" liner annulus would have caused pressure spikes above 15.0 ppg  
floats were checked after pressure was released, allowing 5 bbl for compressibility set  
6 bbl flowback as threshold for acceptance  
leave 40-50' in case they are off by one joint in the count  
5.5 bbl flowed back reducing to a "finger tip trickle" hence deemed okay  
other BP rigs have pumped N2 jobs including Marianas which started the well  
N2 on production casing was new for Deepwater Horizon but they have used N2 on shallower strings

was on the rig 3 days before cement job, held large meeting to discuss cementing plan  
issued step-by-step addendum to preliminary procedure

followed with another cementing meeting including toolpushers for both tours and OIM  
did safety risk assessment  
three (3) 7" casing joints were laid out due to galled connections

**Inquiry about negative test procedure:**

seal assembly tests are Drill-Quip procedures per instructions of onsite Drill-Quip rep.  
Drill-Quip issued updated recommendation raising 3 ksi to 4 ksi  
TO accepted 10ksi on pipe rams for 10 sec.  
6.5 ksi test based on prior BOP test pressures  
per Drill-Quip book only 1 test recommended but onsite rep. advised 2nd test due to prior issues where seal assembly pulled out

if negative test unsuccessful the decision tree says contact John Guide  
on that night Mark Haffe was called but was unaware of drillpipe pressure  
was told they had an issue that was resolved  
he got the impression there was a good negative test  
each rig does negative tests their own way  
displaced from cement plug depth to annular preventers with seawater in order to set cement plug

displaced choke & kill lines to wellhead with seawater, tested lines, opened one line  
and drill pipe back to cementing unit to check for flow for cementing unit or pits  
annular was closed  
target was a hydrostatic pressure reduction of 2350 psi  
this simulates final TxA condition  
the procedure is a bulleted ops. note copied to WSLs  
MMS must approve cement plug depth but not negative test



MMS rules require leaving kill weight mud in casing, therefore this was less and required dispensation  
procedure said open kill line, with drill pipe open to monitor pressure  
they (on rig) knew about pressure on the drill pipe but observed no flow from kill line; not reported to town  
toolpusher & driller said it was due to annular BOP affect  
gas in kill line would freeze in presence of low-temp seawater  
no protocol to witness or verify negative test  
ops. note directs results of positive test should be sent to Houston but no similar requirement for negative test  
the 3 required tests are: seal assembly, positive casing test, negative test  
Brian drew a U-tube diagram on whiteboard to elaborate setup of negative test

**Discussion turned to:**

make-up torque applied to 7" doubles in Smith yard  
the HYD513 connections have been known to back-out, so were checked for proper torque on rig  
casing make-up torque is checked on rig but not recorded using visual confirmation of tong pressure  
Brian was present when 7" x 9-7/8" crossover was made-up

**Inquiry about how MOCs and communications protocols are handled:**

minor changes, i.e., drill bit is communicated verbally by engineer to team & rig  
major changes use BP MOC process  
all problems are discussed with ops. Leader, team leader and upward depending on severity

in relation to above, drilling procedure indicates negative test should last 30 min.  
data does not indicate 2 full negative tests  
had engineer been alerted to drill pipe pressure, John Guide would have been contacted

lead-time on production casing was shortened when 13-5/8" was set shallower than planned

it was a quick process within 2 weeks following sidetrack  
re-checked casing design with EPT expert Steve Morey  
re-checked APB with EPT expert Richard Miller  
verified Nexen 7" casing certs. with Morey  
casing was Q125 but XO was P110 as approved by Morey

adjourned 1220 hrs

INTERVIEWS

BRIAN MOREL

1037<sup>-1230</sup> / 27 APR 10

N.H. ; RICE

ROLE

BP ANADARKO

NIGHT WELL SITE LDR

GOM

MAD DOG 18 MOS

DAY TO DAY DRILLING

SPAR

} CHALLENGER

EXPLORATION

PUMA WELL

DIR ENG

WROTE DRILLING PRG FOR MATCONDO

LEAD ENGINE

EVENT

ISSUES WITH PRESS - PORE  
{- PP LOW  
{- FRAC HIGH

TAKE LOSSES

CUT BACK MUD WT

14.5 → 14.3

TO STOP LOSSES

GEUTER

14.12 TO 14.16

12.6 ON FIRST SAND

CONCERN W/ TOOL ?

SPERRY ✓ OUT

EMER LCL PILL TO STOP LOSS  
PULL UP TO CASING STAG

READY TO PUMP ANOTHER

BUT STOPPED LOSS

DRILLED ANOTHER 100 FT

LOGGING SMOOTH

CLEAN OUT TRIP

RAN 7" CASING 5800'  
FOLLOWED BY 9 7/8"  
ONE BOBBLE  
10000 LBS DOWN

7" FROM NEXVN  
CROSSOVER TO 9 7/8" VENDOR

RIG UP CEMENTING LINES  
DIVERTER CLOSED AS SUPPOSED TO  
HOLD PRESS

PRESS UP AND CONVERT FLOAT EQUIP  
PRESS TO 1800 STILL WOULDN'T GO

RECM ROCKING BACK

BROKE FREE AT 4100  
PRESS. LOWER THAN EXPECTED

DECIDED P GAGE

RIG STAND PIPE P GAGE WAS NOT FUNCTIONING  
(STANDARD OUT THERE)

WARRER P CLOSE TO 14.5 , BNE  
ABOVE 14.16

7 BARRELS

20 14.3 SPACER

5 CEMENT JO

39 FOAM

7 SHOE TRACK VOLUME

20 BBL SPACER

( 2 4 / M )

DART FOR BOTTOM

P HIGHER THAN EXPECTED

DIDN'T SEE BOTTOM RELEASE

TOP THROUGH D.D.T.

AFTER 150 BBL SW TO RIG PUMP

STAND PIPE P/

P AGREED, BUT LOWER

P LOWER

7" BOT PLUG

WENT THROUGH

P INDUCTION AT PUMPS

BOT PLUG LANDED

9 BBLs OF WATER  
IT SHOULD HAVE

TOP PLUG

OK

SET SEAL ASSEMB

6 TURNS RIGHT TO R

4000 PSI

10 000 PSI 10 SEC

BLEED TO 6700 PSI (6500 INTENTION)

WATCHED FOR 1 HR BEC RATE MORE  
THAN EXPECTED

VAPRIL PROCEDURE

SITING

STABBED RUNNING TOOL INTO WELLHEAD

PRESS DROPPED 5 PSI/MIN

4 PSI/MIN FOR 10 MIN

FLOW  
FLOW CHECK

WENT TO BED

HR B4 FLIGHT WAKE UP EARLY



WROTE OPS NOTE

BRIDGE GAP BET PROCD & CURRENT OPS

LEFT.

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ARRIVE THURS

BED TUES 3PM

DEPART TUES 11AM

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LOOKED AT DATA RETROSPECTIVELY

U TUBE EFFECT - BOTH HAD SEA WATER  
CLOSED ANNULAR

DIDNT HAVE VLV OP  
AT CEMENT UNIT (CLOSED)

1400 PSI

CLOGGED MUST HAVE BEEN

16 <sup>PSI</sup> ~~LB~~ SPACER

14 PSI MUD

CEMENT PLUG  $\Delta$  DUE TO  
RUN LOCK DOWN SLEVE

- C
- LEAD INP
- NEED 3000' TO GEN 100000 LBS TO SET

P.

WORRIED ABOUT P&A ON NILE  
SIM OPER TO PREPARE

CONVERSATIONS ABOUT HOW TO EFFECTIVELY  
MOVE

CULTURE FEELING OF CROW?

RIG IS PERF DRIVEN  
ONE STEP AHEAD ALWAYS  
GREAT WELLS OVER 9 IRS  
TOUTED ONE OF BEST TRANSOC & BP

SOME OPS DIFFERENT ON NEXT WELL

P&A OPS ON NILE DIFFERENT

PROD CASING ORDIN.

EVERY MTG TALK ABOUT SAFETY  
TRANSOC SAFETY ON BOARD  
TAKE UP FOR EVERY P TEST, LIFT  
LINES MARKED OFF PROPERLY

O TIR ↑ NEED TO FOCUS & MAINTAIN

I ALWAYS FELT VERY SAFETY

EVERYONE FIRST SAFETY  
PRODUCTION CLOSELY FOLLOWS

STOP JOB NUMEROUS TIMES  
DO ANOTHER JSA  
EVERY NEW CASING  
AFTER RUNNING SO MANY FT  
TO NOT GET COMPLACENT

SAFETY CLASSES  
DRILLER INVOLVED, ASKING QUEST

STOP : DOING SOMETHING NEW  
DOUBLES

JOHN GUIDE INVOLVED  
START CARDS INCREASING

#### CEMENT JOB

ASSUME SHOE WETTEST PT 16.1  
(HAD WORKER FORMATION

NEEDED

NZ. FOAM CAN REDUCE WT  
16.7 CEMENT, ADDED  
14.5 PPG

ALLOWED { 14.6  
          { 14.2 UPPER SAND

PLUG NEED TO ISOLATE CEMENT

MUD  
SPACER  
CEMENT  
SPACER  
PLUG

MOC FOR CEM JOBS

HALIBURT PREDICT  
15 PPG EQUIV W/O  
THOUGHT SHOULD NOT ATTEMPT

JOB DESIGNED IMPROPERLY  
14.4 MUST HAVE BEEN WRONG  
14.19 FROM P GAGES  
PRESSURE EFFECT  
DUE TO COMPRESSIBILITY  
EFFECT (USED ADDED WATER)  
14.0 TO 14.2 TO RID COMPRESS.  
IN MODEL

CEMENT DESIGNED TO NOT GO INTO  $9\frac{7}{8}$ "

PLAN 500' ABOVE KNOWN = 17300'  
17800 (MMS REF)

LEAVE 40' TO 50' IN CASE OFF BY  
ONE JOINT ON COUNT



HAVE N2 PRODUCT. STRINGS IN DEEP WATER

WERE SUPPOSED TO GO 19600'  
BUT FRAC. READING LOWER, DIDN'T GET

28" & 22" = WE ALWAYS FOAM  
BUT NOT AS DEEP

HORIZ FEW HUNDRED SACKS  
V. TEN THOUSAND ON OTHERS FIRM JOBS

RIG PUTS INFO INTO PROCEDURE SINCE THEY  
HAVE UP TO DATE INFO (ON CEMENT JOBS)  
SAFETY RISK ASSESS.

WHEN SAW THINGS OUT OF U:CDIN

DRILLING PROGRAM DIDN'T INCLUDE PROD STRING  
SO MUC WROTE FOR (1) PROD STRING  
(2) CEMENT JOBS

(2) PACKOFF & (3) NEG PRESS      SOME ASSEMBLY

(1) CASING

DRILLING PROGRAM

DRILLING HAND EXPECTED TO RUN PROCEDURE  
RETURN 3000 X 4000 AND 10000

OPER PRET

6500 PSI

( BOPs WERE TESTED  
AT 3500 AND 6500  
6500 W/ PIPE )

10000 P 10 SEC

CRITERIA : PRESSURE TEST

BOOK REWHM 1 TEST

① ROTATE

② PRESS TO FORCE DOGS

③ PULL

PULL 10 FT , CIRCULATE  
RESEAL

NEW PROC  
TO PRECLUDE  
SEPAR FROM  
SEAL ASSMB

\* IF PRESS TEST NOT SUCCESSFUL :

RIG OPER MGR (JOHN GULDE) MUST DECIDE

REGARDING NEG TEST :

MINOR DECISION - ITAN

BIGGER - JOHN GULDE

ON 20 APR THEY DID CALL MARK HAFLE

BUT WAS NOT TOLD ABOUT PRESS

"FIRST ONE DIDN'T LOOK JUST RIGHT,  
BUT SECOND OK"

NEG TEST

STAND ?

EACH RIG DOES IT THEIR

WE DISPLACE TO STINGER TO WELL HEAD  
TO SEA WATER

TEST THOSE LINES

OPEN ONE LINE AND DRILL ~~SEPT~~ PIPE  
TO CEMENT UNIT; LOOKING A  
FLOW

2350 PSI DROP

(SIMULATE  
SEPT WATER RIG TO 8300')  
MMS APPROVAL OBTAINED

BULLETED OPS NOTE DOESN'T TELL YOU  
EXACTLY HOW TO DO IT

OPS NOTE

PROCEDURE : LEAVE KILL WT IN DRILL PIPE  
~~BUT IN THIS CASE~~  
THEY APPROVED

NEG

- A. BOTH ENDS OPEN
- B. OPEN ONE END

DON'T ~~UNDER~~ KNOW IF TRIED TO BLEED PRESS

LACK OF UNDERSTANDING ABOUT HOW U TUBE  
WORKS

(TRAPPED PRESS ON SURFACE? OR BLOCKAGE?)

~~NO~~ CRITERIA FOR UNSUCCESSFUL TEST : FLOW  
~~NO~~ BUT NOT PRESS

NO FLOW IN KILL LINE

NOT REPORTED TO TOWN

T  
IF GAS REACHES KILL LINE, IT WILL  
FREEZE, EXPECT HYDRATES

NO PROTOCOL TO WITNESS NEG TEST

~~CAN BE DONE WITH~~

### COMMUNICATION

CHANGES TO PLAN?

1. MINOR (DRILL BIT MANUFACTURER)

ENGIN INFORMS OTHG  
CALL RIG MGR  
SEND NOTE

2. MAJOR CHANGE

MOC, USE BIZ FLOW

NEGATIVE TEST:

30 MIN TEST (DRILLING PROCEDURE)

CONFUSION OVER WHY ENG WAS TOLD  
2 NEG TESTS; (DIDN'T COMPLETE  
TWO TESTS)

MARK IS SNR. ENG.

WAS NOT AWARE OF PRESS ANOMALY



BRIAN MOREL

events?

Brad J

Howard Ross Thors  
Chandler Lee Thors

1. Engineering of the nitrofiled cement job

- including float equipment engineering with nitrofiled hydrostatic in annulus
- could floats be checked at end of job (after bumping plug) lineup is already release process
- MOC for the change to the longstring and nitrofiled job - risk assessment of nitrofiled job particularly per standard process.

2. Discuss packoff and negative pressure procedures - who writes, reviews, approves

- was criteria established to decide a test was successful
- who has decision-rights on what is done next if the negative test is not successful
- common between old & new re: neg. pressure test

3. How were changes to the plan handled on a day-to-day basis?

- communication protocols - who communicated with rig when changes to the plan were required?
- minor - required verbal operations through rig - send email
- was there discussion about the unusual negative test on first attempt

John Smith  
Mark Hoff

major - brief flow BP MOC 10 p.m. TL, early TL

Policies & Procedures

How was risk assessed on the

① Did you walk us through the risk assessment process  
were there risk assessment completed on the  
nitrofiled job?

was there an MOC

Describe the MOC process for the change to the  
longstring in the production casing

③ Walk me through the process for an MOC as related  
to the longstring

Walk through cement job

Design of production casing became different from  
original design - 9 7/8 Hydril 523 connection

Brian

Any questions of us? We may contact you at a later point

Summary Casing / Cement Job:

- Clean-out run no issues through casing
- Took 10k at 18,272' / 15k at 18,280'
- 1100 units of gas (max) on bottoms up / fell back to below 60 unit after circulating
- Pumped up static density 14.2 and 14.19 ppg
- Flow check - static on bottom
- Pumped to 14,759' MD / no tight spots (flow checked at 17,168' and 14,759')
- Did not retrieve wear bushing on clean-out run (pinned for 60k / sheared tool at 120k)
- RIH with DQ multi-purpose tool and tagged up at 5060' (~5' deep)
- Retrieved with 160k over-pull
- Ran 7" (5816') without filling / auto-fill open / all numbers indicated proper fill-up
- Ran 9-7/8" (7430' w/ WH) with OES fill up tool / all numbers indicated proper fill-up
- Rigged up Allamon DTD 2 stands above hanger (310')
- Rigged up Allamon diverter 2 stands above DTD (310')
- RIH and did not have to fill, fluid came over top ~10-15' from rotary on each stand (3 min/std)
- Dropped 1-5/8" ball at 9-7/8" shoe prior to entering open hole but did not convert
- Took 10k at 18,218' MD / dropped off quickly / no other tight spots in or out
- Landed out as expected from multi-purpose tool run (5059') deep at 18,303' MD
- Rigged up nitrogen cement equipment
- Pressured up and shut diverter (1000 / 2442 psi)
- Pressured up and tested diverter (1000 / 2765 psi)
- Pumped to convert float equipment / pressured up to 1800 psi
- Worked pressure up/down from 0-1800/2000 psi 6 times (no benefit)
- Increased pressure in 250 psi intervals (broke free at 3142 psi)
- Circulated - pump pressure at 1 bpm - 125 psi / 2 bpm - 170 psi / 3 bpm - 255 psi / 3.5 bpm - 295 / 4 bpm - 340
- Perform surface test to IBOP to ensure no leaks
- Switched to pump 3: 1 bpm - 205 psi / 2 bpm - 260 psi / 2.5 bpm - 290 psi / 3 bpm - 320 psi / 3.5 bpm - 345 psi / 4 bpm - 390 psi
- Line up and test choke/kill lines
- Shut annular and circulate down DP up choke/kill to gas separator (to check diverter is closed) (ramp to 1 bpm and stop at 250 psi, complete a second time ramping up to 200 psi then hold at 1 bpm -140 psi) - no flow up riser diverter test good twice
- Opened annular and circulated 111 bbls at 4 bpm
- Pressure tested nitrogen lines to 5000 psi
- Pumped 7 bbls base oil and 10 bbls of 14.3 spacer
- Test cement unit lines to 5000 psi
- Pump 62 bbls of 14.3 spacer
- Pump 4 bbls of unfoamed 16.7 ppg cement to fill lines ( 1 bbl ahead of dart - 3 bbls in lines)
- Release bottom dart
- Pump Cement: 4 bbls 16.7 ppg unfoamed behind dart / 39 bbls 14.5 ppg foamed / 7 bbls 16.7 ppg unfoamed behind. (39 bbls unfoamed = 48 bbls foamed on bottom once compressed)
- Pump 3 bbls 14.3 spacer to clear lines and release top dart
- Pump 17 bbls of spacer with cement unit
- Pump total of 150 bbls downhole (130 SOBMs + 20 spacer)
- Switch to rig pumps and displace job (see chart for calculated vs actual)
- Bumped plug and floats held
- Rotated 6 turns to the right to set seal assembly
- Tested lines to 11k
- Shut pipe rams
- Pressured up to 4000 psi for 30 seconds then 10,000 psi for 10 seconds
- Bleed back to 6700 psi and charted (dropped less than 10% over 45+ min test - good test)
- Sheared out of wellhead with 85k over
- Picked up and circulated for 10 minutes



4/22/2010

Brian Morel

Rev 1

- Stung back into seal assembly and tested again to 10,000 psi for 10 seconds followed by 6500 psi for 5-10 min (straight line 4-5 psi/min drop – good test)
- Monitor well on trip tank / no flow
- Pick up to 4770 and dropped nerf ball / circulated 1-1/2 DS volume
- Pumped 30 bbl slug at 16.3 ppg
- POOH to surface
- Test casing per APD to 250 / 2500 psi
- RIH to 8367'
- Displace to seawater from 8367' to above the wellhead
- With seawater in the kill, closed annular and did a negative test ~2350 psi differential
- Open annular and continue displacement
- BLOWOUT OCCURED

## Planned Operations:

1. Set a 300' balanced cement plug w/ 5 bbls in DP
2. POOH ~100-200' above top of cement and drop nerf ball / circulate DS volume
3. Spot corrosion inhibitor in the open hole
4. POOH to just below the wellhead or above with the 3-1/2" stinger (if desired wash with the 3-1/2" / do not rotate / a separate run will not be made to wash as the displacement will clean up the wellhead)
5. POOH and make LIT / LDS runs
6. Test casing to 1000 psi with seawater (non MMS test / BP DWOP) – surface plug
  - a. Confirm bbls to pressure up on original casing test vs bbls to test surface plug (should be less due to volume differences and fluid compressibility –seawater vs sobm)
  - b. Plot on chart / send to Houston for confirmation

## Cement Volume / Pressure Chart:

Pumps	Step	Calculated			Actual	
		Total	Release Pressure		Volume	Pressure
Cement Unit	Bottom Dart to Diverter	60 bbls	2500 - 3000 psi		43 bbls	3500 psi
Cement Unit	Bottom Dart to DTD	69 bbls	2500 - 3000 psi		-	3250 psi
Cement Unit	Bottom Dart to Plug	78 bbls	800 - 1200 psi		-	-
Cement Unit	Top Dart to Diverter	120 bbls	2500 - 3000 psi		100 bbls	3200 psi
Cement Unit	Top Dart to DTD	129 bbls	2500 - 3000 psi		109 bbls	3400 psi
Cement Unit	Top Dart to Plug	138 bbls	2000 - 2500 psi	Cumm	119 bbls	3300 psi
Cement Unit	Switch to Rig Pumps	150 bbls	-	Total	150 bbls	-
				0 bbls	0 bbls	-
Rig Pumps	Bottom Plug to 7"	611 bbls	-	461 bbls	469 bbls	830 psi
Rig Pumps	Top Plug to 7"	671 bbls	-	521 bbls	527 bbls	590 psi
Rig Pumps	Bottom Plug to Float Collar	817 bbls	900 - 1100 psi	667 bbls	673 bbls	2932 psi
Rig Pumps	Top Plug to Float Collar	877 bbls	500 - 1000 psi	727 bbls ***	727 bbls	740 psi
Rig Pumps	Max Displacement	894 bbls		744 bbls ***	-	-

Jim McKay

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Brian Morel 5/10/10 3:30 - 6 PM  
INTERVIEW

- LINER
  - 11 7/8" early : 9 7/8" LINER
  - originally ~~4 7/8"~~ 9 7/8" LONG STRING  
THEN 9 7/8" x 7" LONG STRING
  - SUCCESSFUL EXPL WELL
  - MODER w/ BACK UP HET SET BY QUARTZ & GAGLIANO.
    - REVIEW OF MODER. & HYDRO. FAILS < 14.1 PPG
- MW - 14.0 PPG = 14.17 ESD
- SAYS 14.14 PPG & : LIMIT AND ESD  
MOD BE GREATER DURING CMT JOB.

Friday - BRIAN BELIEVES MODER WAS WRONG BYC  
PWD HAD 14.17<sup>END</sup> / 14.0 MW BUT  
MOLE HAD 13.95 ESD

- TESSE LOOKED INTO MODER ISSUE, BUT COULDN'T  
FIND ISSUE. RESEARCH CENTER IN CK SAYS  
TEMP PROFILE WAS INCORRECT

- W/ NEW MODEL ~~ABT~~ MAX ESD > 15.0 PPG  
ET WOULD LOOSE RETURNS.

- CAN CMT W/ LOSS : LINER ET NEEDS TO  
REVIEW LINER OPTION - BTH ON 14TH  
MOD REVIEW - MARK F. BRETT, DAVID SMITH, JOHN GRY  
& GREG WALL,



2

IN <sup>MO</sup> MEETING 14.4 HYDROSTATIC  
NEXT DAY TO REVIEW W/ ERICK CUNNINGHAM  
BEFORE APPROVING WORK

- GREG WALK, BRETT K, CUNNINGHAM,  
QUAN (HFS), JESSE
- REVIEW MODEL
  - CHANGED TEMP PROFILE NOTICING  
ODD CHANGES.
  - NOT REMEMBER TEMP EFFECT BUT  
NOT RIGHT
  - MDT DATA W/ TEMPS TO  
CONFIRM MODEL.
  - MDT - 14.17 - 14.18 BUT  
JESSE'S MODEL 14.4  
- SOMETHING WRONG.
  - TURNED OFF COMPRESSIBILITY  
& ADDED 0.17 COMP. TO MAX.  
BASED ON MDT.
  - NEW MODEL LL ECD  
14.6 - 14.7 MAX ECD :.  
COULD CUT LOG STRING.

- 17.14 PPg DESIGN MINIMUM

How to Reduce ESD?

Options: Baseoil on Form Stacer  
Modeling each option

- BASE OIL < 14.4 ESD BUT NOT AT ECD.

- Press SLICE w/ N<sub>2</sub> TURN ON & ∴ DECISION  
TO SLOW RATE

- NEEDED Proper CENTRALIZERS in MODEL (15TH  
MODEL)  
w/ proper RETURNING FORCE w/ 70%

18TH MODEL STANDS OFF.

- CALIBER w/ CORRECT CENT. (6) 1ST 6 TTS

CENTRALIZERS

- 21 = 70% STANDOFF  
6 = 70% STANDOFF (NOT PASS)

(14TH)

(15TH)

CENTRALIZERS

6 → 21 → 6

TRAVEL  
OFFSHORE  
& MEETING w/o  
BMAH

BRETT  
GREG  
JESSE  
MARK?

- COULDN'T FIND CENTRALIZERS  
FOR 21 & ∴

- FINAL PROC. HAD 21 CENT.

- LAST MIN. CHANGE & WITTEN  
BY BRIAN & SENT BY EMAIL

4

(15TH)  
6 → 21 →

- JESSE & BRIAN AGREE THAT MODEL MAY NOT BE ACCURATE w/ CENTRALIZATION.
- BRIAN - LOW RISK w/ LOW DLS & & & :  
NOT CENTRALIZED. JOHN & MARK :
  - PAST EXPERIENCE SAYS MODEL IS CONSERVATIVE
- AGREES TO RUN 21
- JOHN GUY TALKED TO DAVID SIMMS.  
& JOHN CONCERNED ABOUT CLAMP ON CENTRALIZER  
w/ LONG STRING ACROSS STACK.
  - SPECIAL
    - LOCATED CENTRALIZERS BUT ONLY ABLE TO STOP CENT. IF STOP COLLARS ON BOAT.
    - STOP COLLARS ARRIVING AT RUNNING CR.
    - JOHN TALKED TO DAVID SIMMS & DECISION MADE NOT TO RUN 21
    - PLACED CENTR. IN GANGE HOLE TO MAX STANBUFF BASED ON CALIPER DATA.
    - RISK OF GETTING CSG STUCK
      - DUAL STOP RINGS IN MIDDLE
      - WRAP AROUND INTERVAL
      - CLEAN, EPOXY, SET SCREENS, 12 HRS TO SET

5

DISCUSSION ON CENTRALIZATION w/ 6?

BRETT  
COMMUNICATIONS  
TO BRIAN

RISK - POSSIBLE CHANGING INTO 97% STHE  
→ & POSSIBLE LIT RETURNS w/ ECD AT STHE.

- VIEW MODEL NOT ACCURATE B/C VERTICAL WELL

BRIAN - NOT AWARE OF HES GAS FLOW

NEXIN - 6 CENT. , PLANNED STHE, COOKIE CUTTER STHE  
FLOAT EQUIP -

↓  
BETTER TO GET TO BTM

- FC - NEXIN , BUT WORTHEND SALE REP GOT INFO.  
AT CHANIS (BP)  
BRIAN KLAUS (WORTHEND)

- L45 FLOAT w/ CAGED BALL - NORMALLY DRIFT DOWN.

- RISK WITH FC? NOT REVIEWED IN RETAIL

- FS USUALLY BUT NOT IN THIS WELL.

- FC OPEN HOLE?

- OPEN HOLE - CLOSED DIVERTOR BEFORE OH →

ALWAYS UNCERT B/C BALL TAKES TIME.

- RISK OF QUICK CONVERSION

- DISPENSATION FOR ENTIRE WELL ON AUTO FILL. &  
(MOST ALL <sup>6mm</sup> WELLS RTH w/ AUTO FILL OPEN.

MARK HARRY

- MOC ON LONG STRING?

MOC LINER - DECIDES NOT TO PROCEED

MOC LONG STRING - MARK H. & INCLUDED OPTION.

AS ATTACHMENT

- JOHN <sup>SPEER</sup> SPEER, GARY, JOHN <sup>GARY</sup> GARY, DAN. & SIMS

TALKED ABOUT LONG STRING.



6

Foam CMT Plan? Planned from  
Beginning B/C OFFSETS ISABELLA &  
MARIANA narrow PP/FG

- FULL 97/8" w/ N<sub>2</sub> CMT
- MOC FOR TAPERED DESIGN & NOT  
N<sub>2</sub> DESIGN
- IF COULDN'T CMT THEN A LINER.
- N<sub>2</sub> ONLY OPTION REVIEWED &
- CONSIDERED ARGUMENTS - ERICK TO REVIEW  
MODEL ~~But~~
- ERICK INVOLVED IN PHONE CONV.  
w/ N<sub>2</sub> CMT JOB

2 MOC

14TH - MARK HAFENY - DAVID SUMS N-T APPROVES  
NOT SURE WHY  
DAVID WANTS CHANGES ON ATTACHMENTS.  
ERICK MUELLER - FRONT LINE BEYOND THE 2ND  
MOC PROBLEMS??

15TH - BELIEVES MARK HAD ERICK SET UP MOC  
- ANDY - WHY INVOLVED? DON'T KNOW WHY.  
- DAVID APPROVES  
- MAY BE FILL IN FOR DAVID RICH  
- JUDHI STRATG - ETA  
- ~~DAVID RICH~~

7

## N<sub>2</sub> JOB

- BRIEF ON JOB
- OUT FOR
  - CLEAN OUT TRIP, ANY PROBLEMS AFTER SWITCH TO LINE
  - ~~18280'~~
  - 18272' - TAGGED UP & WATERS
  - 18280' - WATERS & NO ISSUES
  - CBL - 1100 LBS & CIRC UNTIL 40 UNITS.
  - FLOW CHECK AT BTM, STE, PUMPED OUT OF HOLE. NO FLOW
- ~~AT~~ N<sub>2</sub> JOB - WIP CHECKS
  - RAN 7" CBL
- CMT UNIT TO RIG FLOOR - / MANFOLD
- SURFACANT ON UNIT
- ★ - VOR CMT UNIT TO RIG FLOOR - 3 balls  
B/C HISTORICAL CMT OVER TOLERANCE.
- RAN 7"
  - SINGLES THEN DOUBLES B/C CONTAMINATION
- DOUBLES - GALLONS ON CONN.
  - DOUBLES CHECKING ALL TORQUES W/ PRO BOLTERS UP
  - DOUBLES CHECK TONG CALIBRATION?
  - NOT SURE, ALL WEATHERED
- SAFETY LTB FOR 9 7/8" & WANT TO BED  
NO 9 7/8" CONN PROBLEMS

- BRIAN NOT ON FLOOR FOR HANGER
  - WRAPPED & NOT ABLE TO SEE SEAR ASS.
- 6 5/8 SIDS - 1ST
- 6 5/8 V -
- OPEN HOLE - DROPPED BALL BUT NOT CONVERTED
  - ~~NO CURE~~ DIVERTED.
  - STAGES SLOW TARGETS 18280 - 18290
  - w/ 5-10 KIPS DOWN
  - PICKED UP BLACK HAWK CAT HEAD
- Decision to RHT w/ DIVERTOR OPEN
- R/U N<sub>2</sub> UNIT
- SAFETY MTR, Then CONVENTION DIV. & ATTEMPTED TO CONVERT FLOATS. NO NOTIFICATION HAND.
  - ALLOWED HAND FAMILIAR w/ & TO ROCK FRONT ↑ & ↓ AP
- BRIAN CALLED JIMMY GUY & GOT PERMISSION TO GO TO 2200 PSI. ~~CAUSED~~ THAN @ CALLED DAVID. BRIAN CALLED BRIAN CLAUSSIN (NOTIFIED). @ 1300 PSI BALL WOULD GO THROUGH w/o CONVERTING FLOATS. FOR WEIGHT, 6000 PSI MAX
- CONVERTED @ 3440 PSI.
  - SOMETHING PLUGGED BUT MAYBE STUCK.
- PRESS MUCH LOWER THAN MODEL.
  - 125 PSI w/ 1 BPM
  - CALLED JIMMY GUY & RECOMMENDED TO GO UP 4 BPM
  - THOUGH THERE MAY BE A LEAK IN DIVERTOR. SHUT ANNULAR, DOWN DP UP KILL. WATCH RISER w/ DIVERTOR ABOVE ANNULAR. → OK

LOWER  
TEMPERATURE

9

- SAW RETURNS BACK TO DE-GASING
- THOUGHT THERE WAS AN ISSUE w/ PUMP GAUGES.
- CIRC SMALL VOL TO GET CUTTING ABOVE  
9 7/8" LINER. IF NOT BTM UP.
- DECISION MADE IN CMT MTR.
- BRIAN TALKED TO WHOLE TEAM BRIAN  
CALLED.
- PUMP CMT. JOB
  - BRIAN IN RIG FIRM
  - 150 bbl (INCLUDES 20 bbl SPACER)
  - LEE LAMBERT + DON M - ON CMT UNIT
  - CMT JOB WENT WELL.
  - 1ST DANT TO DIVERTION SEEN BUT  
EXPECTED R/C N<sub>2</sub>
  - DANT HAS A LOT OF SPEED ∴ DIDN'T  
SEE.
  - GOOD INDICATIONS @ XD
  - DISPLACE w/ CMT UNTIL BOTH PLUGS  
IF SWITCH TO RIG PUMPS.
  - 150 PSI < MODEL BUT ALWAYS < THAN  
MODEL.
- BTM PLUG 10 bbl AFTER OF PLUG
- 80 PSI LIFT PRESS
- LEE LAMBERT ON CMT UNIT w/ NO FLOW  
w/ FLOAT CHECKS
- DRILLER SAID NOT GRABS ON COSSER ON  
CMT TUB FOR DRILLER.
- RIG PUMPS 4 bpm -
- NO FLOW EXCEPT 1 FINGER ON CMT UNIT



10

SEAN ASS - 4000 PSI PER NEW MANUA

- ~~10~~ 10 K PSI BED BACK  
TO 6500 PER APA TEST PRESS.
- DON AT CMT UNIT TO WATCH  
PRESS.

- 5-10 MIN BUT HARD  
45 MIN B/C WASN'T UNFORTUNATE  
UNTIL 4 PSI / MIN  
6-8 PSI / MIN BEFORE BUT KNEW  
A 2<sup>ND</sup> TEST WAS AN OPTION.

- WANT TO BED. CJK TEST WHILE BRIAN  
ON THE CORNER
- DISCUSSION ON HAVING PILL? YES B/C 16.5 PP  
IN 46H IN RAT HOLE SO SMALL & POSSIBLE  
HIGHER ECO
- HOW MANY SHOE ITS DECIDED? DUAL PLUGS  
& EXPERIENCE. DUAL PLUGS GOOD NOTATION  
& SOME STRINGS ARE SINGLE. CONFIDENT  
~180' SHOE OK.

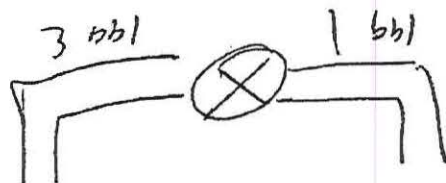
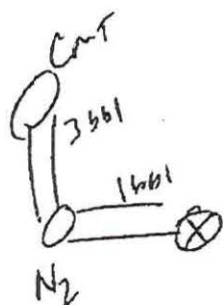
TYPICAL 345TS w/ LARGER CASING

- DISCUSSED PUTTING ~~PLUG~~ <sup>FLUAT</sup> ACROSS DRY & COMPLETION  
SUMP PUMP.

- IF N<sub>2</sub> IN SHOE NEED TO BE AWARE

- PROLOGUE 5-10 bbl BEHIND TOP PLUG?

BRIAN CLAIMS



- DID NOT PUMP 5-10 GBS ~~at~~ BATH-D DART.
- CAN'T REMEMBER WHY THEY DIDN'T DO IT ~~to the~~ DISCUSSED
  - IF NO RETURNS & NOT POSSIBLE TO RUN CBL. w/ 5-10 GBS BATH-D.
- IF LOST RETURNS THEN CBL.
- WHO DISCUSSED?
  - JOHN - GREG
  - TYPICALLY BOTH KNOW BY PHONE OR EMAIL.
  - MINOR - ENGRS ONLY DISCUSS
  - MORNING MTG ONLY
- 3 Wks w/ RIG CEMENTERS
- MODELS - ENGRS MAYBE EST
  - REVIEWED MULTIPLE MODEL RESULTS

12

- BRIAN RECEIVED MODEL ON APRIL 18TH FOR 18TH model
  - MULTIPLE FAILS EMAILED
  - SUNDAY NIGHT REVIEWED ON P/C
  - PRESS RESULTS
  - DID NOT NOTICE GAS FLOW POTENTIAL.
- 2-3 DAYS ON DESIGN REVIEWS
- LAB RESULTS - 34 HRS > 3000 PSE
- MC 252 #1 - OPTION FOR 97/6"
  - PUT TOGETHER BY MARK HARTLEY
  - BRIAN REAG IN MOC REVIEW
  - MAYBE A LATER VERSION OF MARK H.
  - PUT TOGETHER ALSO
- J-TUBE & SD PBE NOT ISSUE w/o  
FROM BACK NO OTHER OPTION
- BASE OIL HYDROSTATIC
- B.S. PORE PRESS IN SAND F/ BP AT TD.  
FOR MODEL.
- 10.75"  $\phi$  CONT. BUT MODEL HAS 8.5"  $\phi$
- PLUGGED CENT UP HOLE 18035'
  - CT IN HOLE = CENTRALIZER
  - TOP OF JOINT
- CHANNELING - DUE TO LACK OF CONT. IN  
MODEL.

## - NEG TEST

- BASE OIL - WHY CHANGED TO SEA WATER?
- NO ENOUGH FOR ~~SEA~~ WHAT WELL BORE WOULD ACTUALLY SEE. IF STATEMENT IN PROLOGUE ALLOWS FOR THIS & AN OBSERVATIONS EMAIL WAS SENT.
- INCREASE REFUGE TO SIMULATE UN STOPS UNDER BALANCE
- DISCUSSION TO SET PRT PLUG IN MUD? WSL UN HORIZ WANTED SEA WATER FOR BETTER CMT PLUG.
- LONG STRING VS OPEN HOLE CEMENT
  - ( PLUG
  - USABLA PRODUCTION & EXPL.
  - EXPLORATION
- NEG TEST - NEED HWDP ON COLLARS TO SET LOCK DOWN SLEEVE.
- WHY NOT LOCK RING IN MUD?
  - ORIGINAL PLAN - LOCK DOWN, THEN SET PLUG & THEN DISPLACE. BUT RISK OF STINGER SCRATCHING LOCK DOWN SLEEVE COULD BE DAMAGE ON TBT HANGER SEAL SURFACE.

PREVIOUS  
PLAN.  
VH1



4

NEG TEST - SAME AS LAST 3 WELLS

- w/ WATER
- DIFF RIGS DO DIFF WAY DEPENDS ON SIMULATION.
- EASY TO CLEAN OUT LINES w/ SEA WATER
- HOW TO DEFINE SUCCESS OR FAIL TEST? NO FLOW 30 MIN.
- MUD ENR HAS PROL. FOR DISPLACEMENT.
- WHO OBSERVES? WIL MONITORING FLOW TYPICALLY RETURNS TO CNT UNIT.

Foam Set + Foam Set SPACER DECISION?

Typically  
TANGUEN RILL  
NOT ACTIVATING  
ON X-LINK.

- TALKED ABOUT IT W/ BRIAN, MUD ENR, LEO (LEAD MUD ENR)
- JON LAOLUE & HURITON MI
- MI CONTACTING BR REGULATING w/ BRIAN CO'S.
- OFFSHORE - SPACER WATER FLUID w/o INTERACTION - / OBRN w/ 1-2 PER HIGH MW TO FLUSH
- MI SAID NO ISSUES w/ FOAM SET & MI PROCEDURE
- DUAL PURPOSE & SPACER + DUMP EXCESS w/o RISK.
- MI PICKED WEIGHT OF FOAM SET
- DISTANCE DURING NEG TEST ABOVE ANNULUS - PUKY
- NO PRIORITIES KNOWLEDGE SAT 4 WKS

BOP PANEL - 2 PANELS w/ DIVERTOR NOT SURE WHICH IS ON DIVERTOR.

UP KILL TO DE. GASSER FOR ANNULUS DIV. TEST

15

- 5 ft DEEPER TAG W/ WHD
  - LEAK ON TENSIONER
  - GALVANIC ISSUES & TOOK TENSIONER OFF LINE.
  - STACK SHOULD HAVE BEEN NOTED DIFF.

1/9

Brian Morel: Interview

5/10/10

- Original design was 9 3/8" long string
- Normal cut edge Jessie

Backup - "Blunag" He set up model. The green hyd. should stay above the 14.12 ppg. Picked that as hyd. pressure based on PWD/MDT. 14 ppg surf - 14.17 DIRM. This would keep entire cut job above the 14.13 ppg sand.

Down hole mud was 14.17. logs etc. His (Blunag) put in surf mud. <sup>14.9</sup> turned up compressor faster got DIRM. 13.9. Team came back to look into model. He could not find issue. Sent to job. Found temp profile was incorrect. Fixed temp profile (thought). 14.0 surf wt - Down hole 14.9 ppg.

Set up <sup>model</sup> review to go over <sup>modeling on why to 13.9</sup> April 13/14. Brian vs Jack 102 from north, Brett, Gary, Simon, Gurbir, to review 72' layer. Data showed 14.4 & it did not match log data. Asked Dave to come over on April 14/15.

Brian, Gary, Brett, Gary, north, Jessie, Brian. Started to review model. If you change temp profile it went in wrong direction for increase or decrease. ECT's wrong

for long term

2/9

went and got MDT data 14.17-14.18.  
Jesse had 14.4 with similar temp.  
- Turned compressible off used 14.17

- Model now showed ECD had dropped shown  
14.6: 14.7. Now showed long string works.  
- Work was different options to lower  
ECD even more. Base oil & Foam.  
- Iterated down to 70% base oil.

- Had big pressure spike when we came on.  
Found that if you slow rates down  
the spike would drop. Also found that  
model did not have right restoring  
force. Assumed 70% standoff. Also looked  
at copper data. He said 6" did not  
meet requirement for 70% standoff.

14.18 The report dated (Thurs 15) has the out  
put from this meeting. 14.18

14.19 They' broadcast (but, long, slow?)  
had met next day for business conference  
Added them both in. Ask Jesse to add

He will show it's final procedure.  
13.18 write this up & email out.



3/9

- Brown, John, believed the model was Mark on fence not representing centralizing. After it was All agreed to run. Dave Sims was initially on board with centralizers but John indicating risk on striking in stall etc.
- Had flame sent to rig, but stop collars were on boat. Collars made it to rig just before running up.
- John talked with Sims - decision made not to run. John called rig do not run. Place them in area most in gauge, across log zone.
  - 6 that were run were "subs" that were together. The others were still on centralizers with a dump stop. Refused button, and not on gas from.
- Brown was not aware of gas flow until just today (5/10/10). Does not know what it means.

4/9

- Purchase of 7" from Newcom.

- 6-sept

- runner shoe & cooling collar shoe.

- front collar.

WFT hand got info. (Brian Clason WFT)

- Do run WFT

Normally run "floating" ball versus  
aged.

- Little ball to be on seat before going into  
open hole. Converted diverter before going into  
open hole. Revised risk about going into  
open hole. There is dispensation for on trial  
well on auto fill - Mark Hilde.

MOC: Did not put MOC for final.

Once determined that long string would  
work Mark Hilde wrote. Called & talked  
with John G. John Sprague, Jim, Keith Davis.  
Told them we could model the design.

The use of form was planned from the start  
for the 7 1/2 long string.

So MOC was covered 7 1/2 to 9 1/2 ft.  
Change not the form.

Had had several calls with time on  
form design.

5/9

- Eric Muller - BTRB coordinator
- Andy Freeze
- Spas wanted some changes on 1<sup>st</sup> MOC.  
Had to create 2<sup>nd</sup> one done by Eric

### On Rig - Cont Job

- Did clean out trip. Had all down equip on rig.
- Loss TMS of 18,200. TMS at 18,200 washed down. 18,200. Washed down CBU. 1100 unit gas. Circ until gas 40-60 units.
- Flow checked on BTRB at shoe.  
Pumped out before Poot
- RH flz lines to rig floor.  
- mounted at rig floor for N<sub>2</sub>
- Surface vent added at cont unit.
- Bleed out to rig floor 3000. Cont told him this.
- Pump 7" singles, center lines. went to doubles and 1 joint. Checked torque on all connections. Not sure if torque calibrated.
- PU xover. Safety meeting. New torque table.
- Pump ass etc. No hard joints.
- PU DA hanger. Brown took it but it was still wrapped.
- RAV 16% DP.



6/9

- Got Pulso while in csg hole Dropped ball for diameter but did not convert.
- Ran into openhole. Had down calculation

18280 5-10K down.

↳ that could be heat buckle pipe.

- R/cmt lines.

- Convert distr.

- Attempt to convert "FE". Trilled with mg floor. Allomms recommended rock the flontr. Brown called John Louche, got permission to go to 2300psi. John and David Brown called WFT.

1200-1300. Ball should go through sleeve even if it did not shift.

Collar rated to 6400psi Could go that high. Inc. pressure to 3000psi called down we to 3140 psi shear out.

Started to circ. 1800psi 125psi. Pressure a lot lower than well model. Called John he recommended go to 4500psi. Still pressure low. Thought lost in diffuser. Shut annular open choke circ.

Think they used lower annular.  
Called down. Everyone ok. Circ.

Plan was to circ cutting down 4500psi.  
Decided in cmt meeting to just circ above lower. Brown thinks he remembers the call.



7/9

- Pumped cont. Brown on rig floor. Thinks Lee was on unit or Don.
- cont job went well.
- Displacement:
  - started with cont unit both plugs gone.
- Lee went to unit to check floats.
- Ask drillers about gain.
- No flow on riser.
- Settings sent away. All went well.
- Don was not happy with seal test held it longer to 4 psi/min. to 8 psi/min before that point. 2nd test looked ok.
- Joints between FC & shoe - with dual plugs thought you would get better down, less contamination. Typical - 3-4 JO longer pipe.
- Discussed that they would have to come back & drill out the casing.

Did not leave 510 BBS of cont up top of don't. Decided not to do it because of risk for running CBL log.

- Changes - are normally discussed, might be done with minor, but on phone.

8/9

- Brown did get copy of email with others copied. Did not read the GFP. Got email on 4/16/10
- Who put ppt file for running long string. Think it's Mark H. H.
- Think there is reason with liner,

Werner  $\Rightarrow$  Make sure they have centerline data

### Negative Test

- Once they got approval from MMS did calculation that bore oil in old lines would not give enough API at shore. The SW to ESSE would be this. Well said we get better plugs set in SW.

Done to run long string, lines it will show time as that with only extra cost was ceiling.

- Original plan <sup>V4.1</sup> was to run LBS, then cut plug. Risk of missing fingers and scratch sealing surface. For tubing hangers.

Do negative test without plugs.

9/10/09

## Space

WSL, Brinn, and Engn. "leo" mud Engn contacted their office & John Leblanc. They also contacted BP negotiating.

- Normally use WBM, couple pigs over MW.
- MI said no issues using LCM pill. Said they would wait it up.
- Could also get rid of pill & dumped.
- MI wrote up procedure for displacement.
- Were not going to X-link.
- Synpro to be above annular.

Tagged up 5' deeper. Not sure why.

- Thomas TP checked on bottom.
- Don said it was always there.



