

9.875" x 7" CASING JOB PROCEDURE

M.C. 252 Well #1

VER.2

1. ONCE LANDED OUT WITH 9.875" x 7" CASING RIG UP HALLIBURTON AND NITROGEN LINES TO CEMENT STAND.
2. WITH RIG PUMPS, PUMP AND CIRCULATE 111 BBLs @ 1 BPM. NEXT, CIRCULATE 150 BBLs @ 4 BPM AS PER CO.MAN.
3. WHILE CIRCULATING, NITROGEN UNIT SHOULD BE COOLED DOWN, AND NITROGEN LINES WILL BE TESTED TO 5000 PSI.
4. ONCE CIRCULATING IS COMPLETE, CLOSE TOP TIW AND PUT 500 PSI ON TOP DRIVE. MAKE SURE THAT BOTTOM TIW VALVE IS OPEN.
5. WITH HALLIBURTON UNIT PUMP 7 BBLs OF 6.7 PPG BASE OIL @ 4 BPM.
6. WITH HALLIBURTON UNIT PUMP 10 BBLs OF 14.3 PPG TUNED SPACER @ 4 BPM.
7. CLOSE THE 2" LO-TORC VALVE ON THE CEMENT STAND. MAKE SURE RIG FLOOR IS CLEAR OF ALL PERSONAL. TEST CEMENT LINES TO 5000 PSI.
8. ONCE ALL TEST ARE COMPLETE MAKE SURE PRESSURE HAS BEEN RELEASED AND OPEN THE 2" LO-TORC VALVE.
9. PUMP 62 BBLs OF 14.3 PPG TUNED SPACER AT 4 BPM.
10. SHUT DOWN, WASH OUT MEASURING TANKS ON CEMENT UNIT, AND WEIGH UP CEMENT.
11. MIX AND PUMP 4 BBLs OF UNFOAMED LEAD CEMENT AT 16.74 PPG. PUMP RATE OF 2 BPM.
12. DROP DART TO RELEASE BOTTOM PLUG.
13. MIX AND PUMP 4 BBLs OF UNFOAMED LEAD CEMENT AT 16.74 PPG. PUMP RATE OF 4 BPM.
14. BRING NITROGEN ONLINE
15. MIX AND PUMP 39 BBLs OF FOAMED TAIL CEMENT AT 14.5 PPG AFTER FOAMING. PUMP RATE OF 2 BPM. (FOAM VOLUME OF 48 BBLs).
16. BRING NITROGEN OFF LINE
17. MIX AND PUMP 4 BBLs OF UNFOAMED SHOE CEMENT AT 16.74 PPG. PUMP RATE OF 2 BPM.

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EXHIBIT #	737
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18. PUMP 3 BBLS OF 14.3 PPG TUNED SPACER @ 2 BPM.
19. DROP DART TO RELEASE TOP PLUG.
20. PUMP 17 BBLS OF 14.3 PPG TUNED SPACER AT 4 BPM.
21. WITH HALLIBURTON PUMPS DISPLACE CEMENT WITH 133 BBLS OF 14.0 PPG MUD @ 4 BPM.
22. REZERO, AND PUMP 727 BBLS (5770 STROKES @ .126 BBLS/STROKE) OF 14.0 PPG MUD WITH RIG PUMPS @ 4 BPM. IF PLUG DOES NOT BUMP, PUMP NO MORE THAN AN ADDITIONAL 17 BBLS FOR A TOTAL OF 744 BBLS WITH RIG PUMPS.
23. BUMP PLUG AND PRESSURE UP TO 500 PSI ABOVE CIRCULATING PRESSURE. CHECK FLOATS AND BLEED BACK NO MORE THAN 6 BBLS. IF 6 BBLS ARE BLED BACK TO THE UNIT, PUMP AN ADDITIONAL 6 BLS OF 14.0 PPG MUD AND HOLD PRESSURE. TIME TO BE DECIDED BY BP COMPANY REPS AND ENGINEERS.
24. SET SEAL ASSEMBLY AND RELEASE RUNNING TOOL FROM HANGER.
25. PULL 2 STDS AND DROP DRILL PIPE NERF BALL. PUMP 1 ½ DRILL PIPE VOLUME (+/- 207 BBLS).
26. POOH.

CEMENT INFO FOR DRILLERS REPORT.

SPACER

72 BBLs AHEAD – 14.30 PPG

TUNED SPACER III + 0.6 GAL/BBL SURFACTANT A + 0.6 GAL/BBL SURFACTANT B + 0.6 GAL/BBL SEM-8 + 1 LB/BBL WELLLIFE 734, MIXED WITH FRESH WATER

LEAD CEMENT

22 SACKS – 5.26 BBLs – 30.14 CU.FT.

PREMIUM H CMT. + .07% EZ-FLO + .25% D-AIR 3000 + 1.88 LB/SK KCL + 20% SSA-1 + 15% SSA-2 + .2 % SA-541 + 11 GPHS ZONESEAL 2000 + 9 GPHS SCR-100L + 1 LB/BBL WELLLIFE 734

YIELD = 1.37 CUFT/SK WATER = 5.13 GAL/SK (FRESH WATER) MIXED AT 16.74 PPG

FOAMED TAIL CEMENT

159 SACKS – 47.75 BBLs – 268.11 CU.FT.

PREMIUM H CMT. + .07% EZ-FLO + .25% D-AIR 3000 + 1.88 LB/SK KCL + 20% SSA-1 + 15% SSA-2 + .2 % SA-541 + 11 GPHS ZONESEAL 2000 + 9 GPHS SCR-100L + 1 LB/BBL WELLLIFE 734

YIELD = 1.37 cuft/sk WATER = 5.13 gal/sk (FRESH WATER) MIXED AT 16.74 PPG

FOAMED TO 14.5 PPG FOAM YIELD = 1.69 CUFT/SK NITROGEN = 584 SCF/BBL

UNFOAMED TAIL & SHOE CEMENT

28 SACKS – 6.93 BBLs – 38.91 CU.FT.

PREMIUM H CMT. + .07% EZ-FLO + .25% D-AIR 3000 + 1.88 LB/SK KCL + 20% SSA-1 + 15% SSA-2 + .2 % SA-541 + 11 GPHS ZONESEAL 2000 + 9 GPHS SCR-100L + 1 LB/BBL WELLLIFE 734

YIELD = 1.37 CUFT/SK WATER = 5.13 GAL/SK (FRESH WATER) MIXED AT 16.74 PPG.

SPACER

20 BBLs AHEAD – 14.30 PPG

TUNED SPACER III + 0.6 GAL/BBL SURFACTANT A + 0.6 GAL/BBL SURFACTANT B + 0.6 GAL/BBL SEM-8 + 1 LB/BBL WELLLIFE 734, MIXED WITH FRESH WATER

PRESSURE INDICATIONS

<u>DH VOL</u>	<u>TOTAL DH VOL</u>	<u>FLUID</u>	<u>METHOD</u>	<u>INDICATION</u>
		CMT	HES	DART
4	4	CMT	HES	N2 ONLINE
48	52	CMT	HES	N2 OFFLINE
7	59	CMT	HES	DART 2
20	20 – 79 TD	SPACER	HES	
41	41M – 120 TD	MUD	HES	DART 1-DIVERTER
9	50M – 129 TD	MUD	HES	DART 1-DTD
9	59M – 138 TD	MUD	HES	DART 1-LAUNCH BP
41	100M – 179 TD	MUD	HES	DART 2- DIVERTER
9	109M – 188 TD	MUD	HES	DART 2-DTD
9	118M – 197 TD	MUD	HES	DART 2- LAUNCH TP
13	131M – 210 TD	MUD	HES	TURN OVER TO RIG

RIG PUMPS

460	460 RM / 591 TM	MUD	RIG	B.P. AT XO
60	520 RM / 651 TM	MUD	RIG	T.P. AT XO
147	667 RM / 798 TM	MUD	RIG	B.P. BUMPS F.C.
60	727 RM / 858 TM	MUD	RIG	T.P. BUMPS F.C.

858 TM + 20 SPACER = 878 TOTAL DISPLACEMENT. NO MORE THAN 17 BBLS OVER.