

APPENDIX E

CASING AND CEMENTING REPORTS

CASING SUMMARY

WELL : Northright-1

DIAMETER	:	30 "	L.O.T. (Plan / Act.)	:0.00 / 0.00
CSG SHOE MD (Plan / Act.)	:	152.00 / 152.87	F.I.T. (Plan / Act.)	:0.00 / 0.00
CSG SHOE TVD (Plan / Act)	:	152.00 / 152.80		

DESCRIPTION	DEPTH	LENGTH	CSG ID	WEIGHT	GRADE	THREAD
13 3/8" SHOE JOINT	152.9	5.35	12.42	68.00	L-80	NEW VAM
13 3/8" TO 14" SWEDGE	147.5	0.17				WELDED
14"	147.4	0.50	13.34	106.50		WELDED
14" TO 30" SWEDGE	146.9	0.97				WELDED
30" PUP	145.9	5.05	27.00	310.00	X-52	SF60
30" WELLHEAD HOUSING JOINT	140.8	12.33	27.00	310.00	X-52	SF60

DIAMETER	:	9.5/8 "	L.O.T. (Plan / Act.)	:0.00 / 0.00
CSG SHOE MD (Plan / Act.)	:	242.00 / 246.80	F.I.T. (Plan / Act.)	:12.50 / 10.31
CSG SHOE TVD (Plan / Act)	:	242.00 / 246.80		

DESCRIPTION	DEPTH	LENGTH	CSG ID	WEIGHT	GRADE	THREAD
13 3/8"	137.8	2.10	12.42	68.00	L-80	WELDED
13 3/8" TO 20" SWEDGE	135.7	0.15				WELDED
18 3/4" WELLHEAD HOUSING	129.0	0.92				
20"	135.6	6.59	18.73	133.00	X-52	WELDED
9 5/8"	222.1	12.04	8.68	47.00	L-80	NEW VAM
9 5/8"	210.1	12.04	8.68	47.00	L-80	NEW VAM
9 5/8"	198.0	12.04	8.68	47.00	L-80	NEW VAM
9 5/8"	186.0	12.04	8.68	47.00	L-80	NEW VAM
9 5/8"	173.9	12.04	8.68	47.00	L-80	NEW VAM
9 5/8"	161.9	12.04	8.68	47.00	L-80	NEW VAM
9 5/8" PUP	140.7	2.35	8.68	47.00	L-80	NEW VAM
9 5/8" PUP	143.7	3.05	8.68	47.00	L-80	NEW VAM
9 5/8" PUP	149.9	6.15	8.68	47.00	L-80	NEW VAM
9 5/8" TO 13 3/8" SWEDGE	138.3	0.47				WELDED
FLOAT JOINT	234.4	12.31	8.68	47.00	L-80	NEW VAM
SHOE JOINT	246.9	12.44	8.68	47.00	L-80	NEW VAM

25.04.2001

EAGLE BAY RESOURCES NL

Casing, Running and Cementing Report

Well Name & Casing Section

Eagle Bay Resources
Drilling Contractor & Rig
Cement Company & Service Rep.

NORTHRIGHT - 1

Jackson/Wilson
Ocean Bounty
Halliburton - Rod Stares

<u>Basic Data</u>		<u>Mud Data</u>	<u>Hole & Prev Casing Data</u>
Casing Size	30"x13.3/8"	Type	PHG
Hole Size	36"	s.g.	1.03sg
Hole Calipered	no	Preflush	M. Depth
Caliper Tool used	n/a	seawater	Casing ID
Est BHT degree.C			Shoe Depth

<u>Cement. Volumes</u>	<u>Displacement</u>	<u>Pumping Pressures</u>
Annular Vol. 46.4 bbl	Calc. Disp 16.7 bbl	Max. Pumping Press. 530psi
% Excess L:% T: 200%	Cmt Unit Disp 16.7 bbl	Sheared Plug with n/a
Shoe Track 2.5 bbl	Rig Displacement 0	Bumped Plug with n/a
Rat Hole 0 bbl	Actual Strokes 0 str	Tested Casing with n/a
Total Volume 134 bbl	Liner size / bbl/stroke 6.5" / 0.1193	

Cement Data

<u>Lead Slurry</u>	<u>Tail Slurry</u>	<u>Spacer(s) Data</u>	<u>Displacement Data</u>
Cement Type G.	Cement G.	Ahead	Mix Rate Lead /Tail 5.0 bpm
Slurry Volume bbls	Slurry Vol. 134 bbls	Type seawater	Displacement Rate 8.5
Mix Water 0 bbls	Mix Water S/W 80 bbls	Volume 75 bbl	Plug Bumped (Y/N) n/a
Liq. Additive	Liq. Additive	Behind	Disp. Over Calc. 30bbl
Econ 0 gal/bbl	NF-1 0 gal/sk	Type seawater	Bump Press, psi 0 psi
HR6L 0 gal/bbl	HR6L 0 gal/bbl	Disp. by Rig/C.U <u>C.U</u>	
Dry Additive CaCl 1%BWOC	Dry Additive CaCl 1%BWOC	<u>Centralizers</u> Make -	
Plan Wt. (15.9ppg)	Plan Wt. 1.91 sg (15.8ppg)	Type, Number & Spacing n/a	
Actual Wt. (15.9ppg)	Actual Wt. 1.91 sg (15.8ppg)	<u>Scratchers</u> Make -	
Yield cuft/sk	Yield 1.16 cuft/sk	Type, Number & Spacing n/a	
Total sacks sacks	Total 673 sacks		

Casing Data

Total Depth - Rt-metres	154.0
Off Bottom (Rat Hole)	1.0
Casing Shoe depth (mRT)	153.0
W/Depth (m) = 105.5 RT-SL = 25 stick-up (top WH above ML) = 1.5 RT to WH Datum	129.0
Landing Collar (make & type)	
1x 13.3/8" x 68ppf L-80 shoe jnt welded to item 2	5.35
1x 13.3/8" x 20" swedge welded	0.17
1x 20"x 30" swedge welded to 30" joint.	0.97
1x 30" upper joint 310ppf X-52 with SF60 pin up.	5.05
1x 30" D/Quip well head housing x SF60 box down. 310ppf X-52	12.33
Total string length:	23.9
Landing String: Drill Quip 30" running tool with 5" S135 DP + SES cement head	140.0

Casing Notes

Conductor string. 30" D/Q well head housing crossed over to 13-3/8" casing shoe.

Detailed Casing and Cementing Report

Ran casing string and PGB with no problems. Hole conditions were good - no significant drag. PGB slope indicator = 0.75deg when first landed. Top of 30" set 1.5m above mud line.

Circulated 75 bbl SW with rig pumps @95spm. Howco pressure tested lines to 1000psi .

Pump/mix LEAD SLURRY Start Time: 22:30hrs 19/11/99.

Mixed & pumped LEAD slurry - pump time = 30 min

Details: 673 sacks 'G' cement mixed with 80 bbls SW (additives = 1% CaCl)

Slurry volume = 134 bbls, density= 1.91 sg, includes 200% open hole excess.

Average Pumping rate = 5.5 bbl/min, maximum pumping pressure = 600 psi

Total Cement pumping time = < 0.5 hour;

Finish Cement Displacement: 10:00hrs 26/4/01 .

Displaced 17bbls w/ Halliburton. **Total displacement time = ~3 min.**

Good returns through job.

Other : refer to Casing Tally Sheet and Halliburton cementers report.

EAGLE BAY RESOURCES NL

27.04.2001

Casing, Running and Cementing Report

Well Name & Casing Section

Eagle Bay Resources
Drilling Contractor & Rig
Cement Company & Service Rep.

NORTHRIGHT-1

Jackson/Wilson
Ocean Bounty
Halliburton - Rod Stares

<u>Basic Data</u>		<u>Mud Data</u>		<u>Hole & Prev Casing Data</u>	
Casing Size	9-5/8"	Type	ph gel	Casing Size	13.3/8"
Hole Size	12.25	s.g.	1.30	Hole OD	16"
Hole Calipered	no	Preflush	see spacer	M. Depth	1450m
Caliper Tool used	n/a	seawater	10 bbl	Casing ID	12.5"
Est BHST deg.C				Shoe Depth	m

<u>Cement. Volumes</u>		<u>Displacement</u>		<u>Pumping Pressures</u>	
Annular Vol.	54 bbl	Calc. Disp	31 bbl	Max. Pumping Press.	650 psi 5 bpm
% Excess L: % T: 100%		Cmt Unit Disp	22 bbl	Sheared Bottom Plug with	1100 psi
Shoe Track	2.9 bbl	Rig Displacement	0 bbl	Bumped Top Plug with	2200 psi 5 bpm
Rat Hole	0 bbl	Actual Strokes	0 str	Tested Casing with	2200 psi
Total Volume	71 bbl	Liner size / bbl/stroke	6" / 0.1018		

Cement Data

<u>Lead Slurry</u>		<u>Tail Slurry</u>		<u>Spacer(s) Data</u>		<u>Displacement Data</u>	
Cement Type	G.	Cement	G.	Ahead		Mix Rate Lead /Tail	5.0 bpm
Slurry Volume	bbl	Slurry Vol.	70 bbl	Type	Seawater	Displacement Rate	5 bpm
Mix Water	bbl	Mix Water	S/W 72 bbl	Volume	80 bbls	Plug Bumped (Y/N)	Yes
Liq. Additive		Liq. Additive		Behind		Disp. Over Calc.	
CFR3L	gal/bbl	NF-1	gal/bbl	Type	Seawater	Bump Press, psi	2200 psi
SCR-100L	gal/bbl	CFR3L	gal/bbl			Disp. by Rig/C.U	CU
Dry Additive		SCR-100L	gal/bbl	<u>Centralizers</u>		Make -	Bow Spring
Bentonite 19x 110#sx -		Halad-414L	gal/bbl	Type, No. & Spacing -		Weatherford bow springs (3)	
Plan Wt.	(12.5ppg)	Plan Wt.	1.90 sg (15.8ppg)	STR-4: Joints #1 (shoe), #2, #3, (only 3 stop rings)			
Actual Wt.	(12.5ppg)	Actual Wt.	1.90 sg (15.8ppg)	<u>Scratchers</u>		Make -	
Yield	cuft/sk	Yield	1.16 cuft/sk	Type, Number & Spacing		n/a	
Total sacks	sacks	Total	340 sacks				

Casing Data

Total Depth - Rt-metres				250.0
Off Bottom (Rat Hole)				3.2
Casing Shoe depth (mRT)				246.9
W/Depth (m) =	105.5	RT-SL =	25	stick-up (top WH above ML) = 2
				RT to WH Datum 128.5
<u>Landing Collar (make & type)</u>				
1x 9.5/8" x 47ppf L80 shoe jnt; b/locked w/ bow spring centraliser & pip ta				Halliburton float collar. 12.4
1x 9.5/8" x 47ppf L80 intermediate jnt; b/locked w/ bow spring centraliser.				Halliburton float collar. 12.3
6x 9.5/8" x 47ppf L80 Vam Intermediate Joints				72.2
1x 9.5/8" x 47ppf L80 Vam pup joint				6.2
1x 9.5/8" x 47ppf L80 Vam pup joint				3.1
1x 9.5/8" x 47ppf L80 Vam pup joint (Welded to Swedge)				2.4
1x 9 5/8" to 13 3/8" Swedge (Welded)				0.5
1x 13 3/8" pup				2.1
1x 13 3/8" to 20" Swedge (Welded)				0.2
1x 20" Pup				6.6
1x Drilquip 18 3/4" Wellhead Housing				0.9
Total string length:				118.8
Landing String: Drilquip 18 3/4" Wellhead running tool + 3x joints 5" DP + 12x joints 5" HWDP + Deepsea Express cement head				140.0

Casing Notes

Intermediate casing consisted of 9 5/8" casing crossed over to 20" with an 18 3/4" wellhead housing

Detailed Casing and Cementing Report

Ran 9.5/8" casing string. Hole conditions very good. No problems whilst running casing. Latched with 30K down and tested with 50K up.

Circulated 2x hole volume with rig pumps @80spm. Pumped 5bbl seawater with fluoro dye.

Howco pressure tested lines to 3000psi. Pumped 5bbl seawater with fluoro dye. Dropped dart - sheared btm plug @1100psi.

Pump/mix LEAD SLURRY Start Time: ~04:39 27/04/01.

Mixed & pumped TAIL slurry - pump time = 15 min

Details: ~340 sacks neat 'G' cement mixed with 72 bbls SW (additives = 1 Gal DAIR 3000L)

Slurry volume = 70 bbls, density= 1.90 sg, includes 100% OH excess.

Average Pumping rate = 5 bbl/min, maximum pumping pressure = 650 psi.

Total Cement pumping time = ~ 43 Minutes.

Cement Displacement: ~04:59hrs 27/04/01 Drop dart with Dowell Deepsea Express - saw top plug shear at 2200psi.

Displaced 22bbls w/ Howco **Total displacement time = ~6 minutes.**

Returns observed with the ROV.

Tested casing to 2200psi - ok.

Other : refer to Casing Tally Sheet and Halliburton cementers report.

EAGLE BAY RESOURCES NL

29.04.2001

Casing, Running and Cementing Report

Well Name & Casing Section

Eagle Bay Resources
Drilling Contractor & Rig
Cement Company & Service Rep.

NORTHRIGHT-1

Jackson/Wilson
Ocean Bounty
Halliburton - Rod Stares

<u>Basic Data</u>		<u>Mud Data</u>	<u>Hole & Prev Casing Data</u>
Casing Size	P&A	Type KCI PHPA	Casing Size 9 5/8"
Hole Size	8.5"	s.g. 1.10	Hole OD 8.5"
Hole Calipered	no	Preflush	M. Depth 391 m
Caliper Tool used	n/a	seawater	Casing ID 8.68"
Est BHST deg.C			Shoe Depth 246.8 m

<u>Cement. Volumes - Plug # 1</u>		<u>Displacement - Plug # 1</u>	<u>Pumping Pressures - Plug # 1</u>
O/H Volume	20.9 bbl	Calc. Disp	9.5 bbl
% Excess L: % T: 50%		Cmt Unit Disp	9.5 bbl
C/H Volume	8.4 bbl	Rig Displacement	0 bbl
Rat Hole	0 bbl	Actual Strokes	0 str
Total Volume	40 bbl	Liner size / bbl/stroke	6" / 0.1018
			Max. Pumping Press. 375 psi 4.7 bpm
			Sheared Bottom Plug with - psi
			Bumped Top Plug with - psi bpm
			Tested Casing with - psi

<u>Cement. Volumes - Plug # 2</u>		<u>Displacement - Plug # 2</u>	<u>Pumping Pressures - Plug # 2</u>
O/H Volume	0 bbl	Calc. Disp	9 bbl
% Excess L: % T: 50%		Cmt Unit Disp	9 bbl
C/H Volume	15 bbl	Rig Displacement	0 bbl
Rat Hole	0 bbl	Actual Strokes	0 str
Total Volume	15 bbl	Liner size / bbl/stroke	6" / 0.1018
			Max. Pumping Press. 375 psi 5 bpm
			Sheared Bottom Plug with - psi
			Bumped Top Plug with - psi 5 bpm
			Tested Casing with - psi

Cement Data

<u>Plug # 1</u>		<u>Plug # 2</u>	<u>Spacer(s) Data</u>	<u>Displacement Data</u>
Cement Type	G.	Cement	G.	Mix Rate Lead /Tai 5.0 bpm
Slurry Volume	38.8 bbl	Slurry Vol.	15 bbl	
Mix Water	23 bbl	Mix Water	9 bbl	
<u>Liq. Additive</u>		<u>Liq. Additive</u>		
CFR3L	gal/bbl	NF-1	gal/bbl	
SCR-100L	gal/bbl	CFR3L	gal/bbl	
<u>Dry Additive</u>		SCR-100L	gal/bbl	
Bentonite 19x 110#sx -		Halad-414L	gal/bbl	
Plan Wt.	1.90sg (15.8ppg)	Plan Wt.	1.90 sg (15.8ppg)	
Actual Wt.	1.90sg (15.8ppg)	Actual Wt.	1.90 sg (15.8ppg)	
Yield	1.16 cuft/sk	Yield	1.16 cuft/sk	
Total sacks	187 sacks	Total	72 sacks	
			<u>Centralizers</u>	Make - N/A
			Type, No. & Spacing -	N/A
			STR-4: N/A	
			<u>Scratchers</u>	Make -
			Type, Number & Spacing	n/a

Casing Data

Total Depth - Rt-metres	250.0
Off Bottom (Rat Hole)	3.2
Casing Shoe depth (mRT)	246.9
W/Depth (m) = 105.5 RT-SL = 25 stick-up (top WH above ML) = 2 RT to WH Datum 128.5	

Casing Notes

Detailed Casing and Cementing Report

RIH w/ cut-off cement stinger on 18 jts of 3 1/2" DP, on 5" D/P
Circulated bottoms-up with rig pumps
Howco pressure tested lines to 1000psi . Pumped 5bbl seawater.
Pump/mix PLUG # 1 SLURRY Start Time: ~07:46 29/04/01.
Mixed & pumped Plug #1 Tail slurry - pump time = 14 min
Details: 187 sacks neat 'G' cement mixed with 23 bbls SW (additives = 1 Gal DAIR 3000L)
Slurry volume = 38.8 bbls, density= 1.90 sg, includes 50% OH excess.
Average Pumping rate = 5 bbl/min, maximum pumping pressure = 375 psi.
Total Cement pumping time = ~ 30 Minutes.
Cement Displacement: ~08:00hrs 29/04/01
Displaced 1.2 bbls of seawater and 8.9 bbls of mud w/ Howco **Total displacement time = ~2 minutes.**
Other : refer to Halliburton cementers report.
WOC
RIH w/ cut-off cement stinger on 3 1/2" DP, on 5" D/P
Tag Plug # 1 at 226 m with 5K
Circulated bottoms-up with rig pumps
Howco pressure tested lines to 1000psi . Pumped 5bbl seawater.
Pump/mix PLUG # 2 SLURRY Start Time: ~13:52 29/04/01.
Mixed & pumped Plug #2 Tail slurry - pump time = 5 min
Details: 72 sacks neat 'G' cement mixed with 9 bbls SW (additives = 1 Gal DAIR 3000L)
Slurry volume = 15 bbls, density= 1.90 sg.
Average Pumping rate = 5 bbl/min, maximum pumping pressure = 375 psi.
Total Cement pumping time = ~ 23 Minutes.
Cement Displacement: ~08:00hrs 29/04/01
Displaced 9 bbls of seawater w/ Howco Total displacement time = ~2 minutes.
Other : refer to Halliburton cementers report.