

Munoz, Rick

From: Vasquez, Michael
Sent: Saturday, March 01, 2014 9:49 AM
To: Munoz, Rick
Cc: VonEhr, Jason
Subject: FW: Logbook Entry: 03/01/2014

FYI ...

-----Original Message-----

From: HOO Hoc
Sent: Saturday, March 01, 2014 7:50 AM
To: HOO Hoc
Subject: Logbook Entry: 03/01/2014

Ops Officer : DONG HWA PARK
Entry Date : 03/01/2014 - 08:20
Entry Type : WELL LOGGING
Notify Date - Time : 03/01/2014 - 08:20
Event Date - Time : - ()
Site :
Emergency Class :

Notified by a Halliburton Energy Services, Inc. (License# 42-01068-07) Radiation Safety Officer of a proposed well logging source abandonment (Steve Woods 580-618-0791 cell; 580-251-3936 office). The abandoned well logging source consists of a Cs-137, 2 Ci, Serial #39372B and a Am241Be, 15 Ci, Serial #59455B located at Well East Break 646 #11, Lease OCS-G-20725.

"The East Breaks 646 #11 well has drilled into a higher than expected pore pressure and is in a well control situation. The maximum mud weight has been reached and cannot be raised without the risk of losing returns which could increase the severity of the well control events. The BHA cannot be safely pulled out of the well and replaced with a cementing assembly. The safest way to stabilize the well is to cement the BHA and nuclear sources in the well.

"TD: 10,876' MD / 10,137' TVD

"Current Mud Weight: 13.7 ppg in well. 14.7 ppg in riser. EMW at TD 14.0 ppg

"Last Casing: 9-7/8", 62.8#, HPQ125, H523 liner @ 10,245' MD / 9,564' TVD

"Estimated Pore Pressure: 14.0 ppg"

The R4 Branch Chief (Michael Vasquez) and Steve Woods discussed further details on the Operations Center conference bridge (NRC-1). Based on available information, permission was granted to proceed with the abandonment procedure by Mr. Vasquez.

Notified the R4DO (Hagar), R4 Branch Chief (Vasquez) and FSME_Events Resources via email.

Munoz, Rick

From: Vasquez, Michael
Sent: Saturday, March 01, 2014 9:51 AM
To: Munoz, Rick
Cc: VonEhr, Jason
Subject: FW: EB 646 Eriksson abandonment plan
Attachments: EB 646 #11 Drilling Program - P&A Halliburton.docx; EB 646 Eriksson FBB _P&A.pdf; BHA Run1200Tally.pdf

-----Original Message-----

From: HOO Hoc
Sent: Saturday, March 01, 2014 7:31 AM
To: Hagar, Bob; Vasquez, Michael
Subject: FW: EB 646 Eriksson abandonment plan

Headquarters Operations Officer
U. S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure email: hoo1@nrc.sgov.gov

-----Original Message-----

From: Steve Woods - Global RSO [<mailto:Steve.Woods@Halliburton.com>]
Sent: Saturday, March 01, 2014 8:28 AM
To: HOO Hoc
Subject: EB 646 Eriksson abandonment plan

Density Source: 39372B - 2Ci Cs-137
Neutron Source: 59455B - 15 Ci Am241Be

Steve Woods
Global Radiation & Explosive Safety
Senior Radiation Safety Officer
Halliburton Energy Services, Inc.
Office:580-251-3936
Mobile:580-618-0791
e-mail: Steve.Woods@Halliburton.com

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PLUG & ABANDONMENT SCHEMATIC

February 28, 2014

Eriksson FBB Prospect

EnSCO 8500

Well: East Breaks 646 #11 ST00 BP00
 Lease: OCS-G-20725
 Surf Loc: X = 1,158,131.9', Y = 9,931,165.5' (1,812' FWL & 515' FNL EB 646)
 Btm Loc: X = 1,160,427.6', Y = 9,931,134.5' (4,108' FWL & 546' FNL EB 646)
 Total Depth: 10,876' MD / 10,137' TVD

Water Depth (ft): 3,630'
 KB to MSL (ft): 84'
 KB to Mud Line (ft): 3,714'
 Top of 18-3/4" WH (ft): 3,700' (14' AML)
 Top of 36" WH (ft): 3,703' (11' AML)

OBJECTIVE FORMATION	TOL DEPTH	SHOE DEPTH	MD [TVD]	HOLE SIZE CASING	CEMENT	MUD (LOT)	OTHER
		4,045' [4,045']		JETTED 36" Structural Pipe			
				TOC: ± 3,714'	Spud / Seawater / WBM 8.6 - 12.0 ppg as needed		
		4,647' [4,647']		28" Casing, 218.48#, X56, S80MT (3,714' - 4,647') [ID 26.50"]			
				TOC: ± 3,714'	Spud / Seawater / WBM 8.6 - 12.0 ppg as needed		
16" TOL [ID 18.338"] 4,177' [4,177']				Surface cement plug 3700' - 3900' (100' - 300' BML)			
18" TOL [ID 18.210"] 4,772' [4,772']				CIBP in 13-5/8" casing at ±4,230' with cement to 3900' - 4230' inside 22" casing.			
		5,205' [5,205']		22" Casing, 224.28#, 1,000" WT, X-80, S90MMT (3,714' - 5,205') [ID 20.00"]			
			14.0 ppg KWM	TOC: ± 5,800'	Synthetic 9.7 ppg	(10.08 ppg LOT)	Kick-Off @ 6,345' Build 2.5"/100' to 44.6"
				Halliburton Swell Packer in 13-5/8" x 16" annulus with 10 day swell time @ 6058' MD / TVD			
		6,440' [6,438']		18" Liner, 117#, HPP110, H511 (4,772' - 6,440') [ID 16.825", Drift 16.563"]			
				TOC: ± 6,690'	Synthetic 10.5 ppg		
		7,190' [7,167']		16" Liner, 109#, HPQ125, H513 (4,177' - 7,190') [ID 14.688", Drift 14.501"]			
				TOC: ± 7,305'	Synthetic 10.5 - 11.6 ppg		
C. mac 7,510' Gas [7,460']		7,566' [7,510']		14" Casing, 112.8#, C110, SLSF (3,714' - 3,759') [ID 12.406", Drift 12.250"] 13-5/8" Casing, 88.2#, HPQ125, SLSF (3,759' - 7,566') [ID 12.375", Drift 12.250"]			
				TOC: ± 8,000'	Synthetic 12.0 ppg		
Orange 7,816' Gas [7,704']		8,460' [8,227']		11-7/8" Liner, 71.8#, HCQ125, H513 (7,317' - 8,460') [ID 10.711", Drift 10.625"]			
				TOC: ± 8,900'	Synthetic 12.9 ppg		Kick-Off #2 @ 9,437' Drop 2.5"/100' to 24"
L. Green 9,631' Gas [9,058']				Cement retainer @ ±10,078' w/ 200' of cement on top & cement below from 10,078' - 10,300'			
DP-1 Shaled Out				9-7/8" Liner, 62.8#, HPQ125, H523 (8,196' - 10,245') [ID 8.625", Drift 8.500"]			
DS-1 10,092' Ratty/Shaley [9,432']		10,245' [9,564']		TOC: ± 10,876'	Synthetic 13.2 - 13.5 ppg		Hold 24° to TD
DS-3 10,462' Oil [9,762']				Top of drill pipe at 10,196'			
DS-4 Shaled out				Cement plug from 10300' - 10,876'			
DT 10,732' Wet [10,005']				Density source at 10,773' MD / 10,057' TVD Neutron source at 10,788' MD / 10,043' TVD			
Total Depth		10,876' [10,137']		8-1/2" x 9-1/2" Hole TD @ 10,876' MD / 10,137' TVD			



PLUG AND ABANDONMENT OF DENSITY / NEUTRON SOURCE

**EAST BREAKS 646 #11
OCS-G-20725**

February 28, 2014

Operational Summary

The East Breaks 646 #11 well has drilled into a higher than expected pore pressure and is in a well control situation. The maximum mud weight has been reached and cannot be raised without the risk of losing returns which could increase the severity of the well control events. The BHA cannot be safely pulled out of the well and replaced with a cementing assembly. The safest way to stabilize the well is to cement the BHA and nuclear sources in the well.

TD: 10,876' MD / 10,137' TVD

Current Mud Weight: 13.7 ppg in well. 14.7 ppg in riser. EMW at TD 14.0 ppg

Last Casing: 9-7/8", 62.8#, HPQ125, H523 liner @ 10,245' MD / 9,564' TVD

Estimated Pore Pressure: 14.0 ppg

PLUG AND ABANDONMENT

Interval Objectives: Perform all operations in a safe manner while maintaining full environmental & regulatory compliance.

Open hole show, DS-3 sand 10,465' – 10,600'

Set permanent barriers in the well to meet Anadarko and BSEE requirements.

Current Status: Drilled to 10,876' MD / 10,137' TVD with 13.5 ppg MW (LOT on 9-7/8" shoe 14.0 ppg). Well flowed on connection. Circulated 13.7 ppg around and well still flowed. Increase MW in riser to 14.3 ppg for a 13.9 ppg EMW on bottom and the well flowed. Currently increasing the MW in the riser to 14.7 ppg for a 14.0 ppg EMW on bottom and circulating 8 bbl influx out on the choke. Cannot raise the mud weight anymore without risk of losing returns.

TD: 10,876' MD / 10,137' TVD

Current Mud Weight: 13.7 ppg in well. 14.3 ppg in riser. EMW at TD 13.9 ppg

Last Casing: 9-7/8", 62.8#, HPQ125, H523 liner @ 10,245' MD / 9,564' TVD

1. Cement the bottom hole assembly in place. Mix and pump ± 85 sks (90 ft³, 16 bbl) Class H @ 16.4 ppg. Displace the cement to 10,300 to put a balance plug in the open hole from 10,300' – 10,876'. Wait on cement 18 – 24 hrs.
2. R/U e-line and GIH to determine the TOC inside of the drill pipe.
3. If the TOC in the drill pipe is below the WIPR sub at 10,196', then drop WIPR dart to land in WIPR sub and cut the drill pipe at 10,196'.
4. If the TOC is above the WIPR sub, then R/U e-line and GIH w/ drill pipe severing tool and cut the drill pipe above the TOC.
5. Circulate 14.0 ppg mud around and POOH with drill pipe.
6. GIH with cement retainer and tag top of drill pipe at 10,196'. P/U and set retainer at $\pm 10,075'$. Test same to 1000 psi and hold pressure. Establish injection rates at 1, 2, & 3 bpm. Mix and pump ± 167 sks (177 ft³) of Class H cement. Squeeze 17 bbls below the retainer and spot 14.5 bbls on top of the retainer. Unsting from 9875' – 10075' above the retainer and 10075' – 10300' below the retainer. P/U above the TOC and reverse out.
7. Once above the BOPs, close blind rams and test the casing to 2000 psi for 30 minutes and record on a chart.

8. Perform negative test by pumping 6.8 ppg base oil down the choke or kill line to the BOPs. The expected differential pressure is ± 1371 psi. Close the blind shear rams bleed the pressure off in 200 psi increments to the trip tank. Monitor the trip tank for 5 minutes after each bleed off. Once the pressure is bled to 0 psi, monitor the trip tank for 30 minutes. A successful negative test is a no flow for 30 minutes. This will be equivalent to 6.8 ppg at the mudline, 10.3 ppg at the 11-7/8" liner top, 10.7 ppg at the 9-7/8" liner top, 11.1 ppg at the cement retainer at 10075', and 11.4 ppg at well TD.
9. GIH w/ CIBP and set same at 7300' (above 11-7/8" TOL at 7317'). Mix and pump ± 158 sks (167 ft³, 30 bbls) of Class H cement at 16.4 ppg. Spot a 200' plug on top of the CIBP from 7100' – 7300'.
10. GIH and set CIBP in the 13-5/8" at $\pm 4230'$.
11. Pull wear bushing from wellhead. Use SLT and pull packoff from 14" casing hanger. Be prepared for any trapped pressure after the annulus is exposed.
12. GIH with casing cutter and cut the 13-5/8" casing at $\pm 4150'$ (above the 16" TOL @ 4177'). Pull and L/D 13-5/8" casing.
13. Close blind shear rams and test the casing to 1500 psi. This will confirm that the 13-5/8" x 16" annulus is isolated with the swell packer.
14. GIH w/ drill pipe stinger and tag CIBP at 4230'. Mix and pump ± 475 sks (503 ft³, 90 bbl) of Class H at 16.4 ppg. Spot a plug from 3900' – 4230', inside 20" casing down to CIBP at 4230'.
15. WOC 24 hrs and GIH and tag same. Test the cement plug and 22" casing to 1000 psi for 30 minutes and record on a chart.
16. Perform negative test by pumping 6.8 ppg base oil to the BOPs. Expect a differential pressure of ± 1371 psi. Close the pipe rams and bleed off pressure in 200 psi increments to 0 psi to the trip tank. Monitor the trip tank for 5 minutes between each bleed off. Once at 0 psi, monitor the well for 30 minutes. A successful negative test is a no flow for 30 minutes. This will be equivalent to 6.8 ppg at the mudline, 8.3 ppg at the 18" shoe, and 8.8 ppg at the 16" shoe.
17. Displace 13.9 ppg mud with seawater.
18. Mix and pump ± 412 sks (437 ft³, 78 bbls) of Class H cement at 16.4 ppg. Spot a 200' surface plug from 3700' – 3900' (100' – 300' BML). This will be directly on top of the previous plug at 3900'.
19. POOH L/D drill pipe.
20. Pull BOPs and riser and release rig to ship yard.

WELL INFORMATION

Created On : Feb 27 2014

BHA Tally

Drillstring

IADC Rig BHA# 1200

Run# 1200

Customer : Anadarko Petroleum Corporation
 Well Name : OCS-G 20725 011 ST00BP00
 Job Number : LF-XX-0900455820
 Rig Name : Ensco 8500
 Field Name : East Breaks 646
 Country : USA

COMPONENT DATA

Item #	Description	Serial Number	OD (in)	ID (in)	Gauge (in)	Weight (lbf)	Top Connection	Length (ft)	Cumulative Length (ft)
1	8.5" Smith 7 Blade PDC	JX9595	6.000	2.063	8.500	84.97	B 4-1/2" IF	1.46	1.46
2	Geo-Pilot 7600 XL 25KSI	90391826	7.625	1.490	8.125	113.00	B 4-1/2" IF	20.17	21.63
	Ref Housing Stabilizer				8.125				
3	6 3/4" DrillDOC	11661497	7.130	2.060		108.41	B 4-1/2" IF	7.16	28.79
4	Inline Stabilizer (ILS)	CP747091	6.750	2.875	8.375	99.83		1.94	30.73
5	6 3/4" EWR-M5 Collar	90392435	6.750	1.920		101.90	B 4-1/2" IF	23.61	54.34
6	6 3/4" DM Collar	12084928	6.750	3.125		103.40	B 4-1/2" IF	9.13	63.47
7	Inline Stabilizer (ILS)	CP1182369	6.750	2.815	8.375	100.74	B 4-1/2" IF	1.92	65.39
8	6 3/4" BAT Collar	11522562	6.750	1.905		97.70	B 4-1/2" IF	20.30	85.69
9	6 3/4" CTN Collar	11693857	6.750	1.905		102.30	B 4-1/2" IF	11.81	97.50
10	6 3/4" ALD Collar 25KSI	11381346	6.750	1.920	8.250	104.30	B 4-1/2" IF	16.22	113.72
	Stabilizer				8.250				
11	6 3/4" NEG PULSER	90392433	6.750	1.920		108.90	B 4-1/2" IF	15.02	128.74
12	Float Sub	SD1111551	6.750	2.810		100.82	B 4-1/2" IF	4.07	132.81
13	8 3/8" IB Stab	SD14421	7.063	2.438	8.375	117.62	B 4-1/2" IF	5.22	138.03
14	9 1/2" Riptide Under Reamer	2045330	6.500	2.190	9.500	109.12	B 4-1/2" IF	19.09	157.12
15	Float Sub	SD111528	6.750	2.810		100.82	B 4-1/2" IF	4.10	161.22
16	6-1/2" Drill Collar	Rig	6.813	2.813		91.70	B 4-1/2" IF	30.42	191.64
17	8 3/8" IB Stab	SD601537	6.875	2.313	8.375	112.19	B 4-1/2" IF	6.96	198.60
18	1 x 6 1/2" Drill Collar	Rig	6.750	2.813		91.70	B 4-1/2" IF	30.52	229.12
19	6-1/2" Pony Collar	SD45125	6.810	2.813		102.95	B 4-1/2" IF	14.67	243.79
20	8 3/8" IB Stab	SD22250	6.875	2.813	8.375	105.33	B 4-1/2" IF	6.14	249.93
21	1 x 6 1/2" Drill Collar	Rig	6.875	2.813		91.70	B 4-1/2" IF	31.02	280.95
22	12 joint's x 5" HWDP		5.000	3.000		49.30	B 4-1/2" IF	366.27	647.22
23	White WIPR joint	700117	6.875	2.410		110.97	B 4-1/2" IF	32.46	679.68
24	6-1/2" Jar	17602077	6.438	2.750		88.24	B 4-1/2" IF	32.54	712.22
25	12 joints x 5" HWDP		5.000	3.000		49.30	B 4-1/2" IF	365.88	1078.10
26	Red WIPR joint	700162	7.000	2.562		113.59	B 4-1/2" IF	31.65	1109.75
27	1 joint x 5" HWDP		5.000	3.000		49.30	B 4-1/2" IF	30.66	1140.41
28	5" X 4.276" - 19.5# 6-5/8" X 2-3/4" NC 50 (XH)		5.000	4.276		22.60		2019.50	3159.91
29	6-5/8" X 5.965" - 25.2# 8-1/2" X 4" FH		6.625	5.965		27.28		7886.00	11045.91
	Total:							11045.91	

BIT DATA

Bit Number	: 8	Nozzles	: 5x12
Bit Size (In)	: 8.500	TFA (in2)	: 0.5522
Manufacturer	: Schlumberger / Smith	Dull Grade In	:
Model	: MDi716	Dull Grade Out	:
Serial Number	: JX9595		

BHA Weight (klb)		(klb)			
in Air (Total)	: 76.00	in Mud (Total)	: 60.36	Mud Weight (ppg)	: 13.50
in Air (Below Jars)	: 49.99	in Mud (Below Jars)	: 39.70		

COMMENTS

Reamer Distance: 142.83'
 Sensor Distance:
 GABI: 4.74'
 DrillDoc: 24.07'
 PWD: 31.91'
 AGR: 32.55'
 EWR: 40.68'
 DIR: 59.15'
 X-Bat: 74.50'
 CTN: 87.64'
 ALD: 102.64'