Schlumberger

Cementing Service Report

Customer: Nighthawk			Job Number: COU5-00062
Well: John Craig 1-2	Location (legal):	Schlumberger Location:	Job Start: Oct/21/2013
Field: Wildcat	Formation Name/Type: Clean-Sandstone	Deviation: deg	Bit Size: 12.3 in
County: Lincoln	State/Province: Colorado	BHP: psi	BHST: 84 degF
Well Master:	API/UWI:	BHCT: 80 degF	Pore Press. Gradient: lb/gal

Rig Name	Drilled For	Service Via
Spud Rig	Oil	Land

Offshore Zone	Well Class	Well Type
	New	Development

Drilling Fluid Type	Max. Density	Plastic Viscosity
Other	lb/gal	cP

Service Line	Job Type
Cementing	Surface

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
1500 psi	psi	Single Cement head

Service Instructions
40bbl 147sks Lead CMT @ 14# 1.54 Yield 7.9 gal/sk water

Well MD	Well TVD
336.5 ft	336.5 ft

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
336.5	8.6	24.0	J55	8RD
0.0	0.0	0.0		

Tubing/Drill Pipe

T/D	Depth, ft	Size, in	Weight, lb/ft	Grade	Thread

Perforations/Open Hole

Top, ft	Bottom, ft	shot/ft	No. of Shots	Total Interval
ft	ft			ft
ft	ft			Diameter in
ft	ft			

Treat Down	Displacement	Packer Type	Packer Depth
Casing	18.6 bbl		ft

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
bbl	21.4 bbl	25.0 bbl	bbl

Casing/Tubing Secured: [x]	1 Hole Vol. Circulated prior to Cement: [x]	Casing Tools	Squeeze Job
Lift Pressure: psi		Shoe Type: Guide	Squeeze Type:
Pipe Rotated: [ ]	Pipe Reciprocated: [ ]	Shoe Depth: 336.5 ft	Tool Type:
No. Centralizers:	Top Plugs: 1	Bottom Plugs:	Stage Tool Type:
Cement Head Type: Single		Stage Tool Depth: ft	Tool Depth: ft
Job Scheduled For: Oct/21/2013 13:00	Arrived on Location: Oct/21/2013 13:00	Leave Location: Oct/21/2013 17:30	Collar Type: Float
		Collar Depth: 293.5 ft	Tail Pipe Size: in
			Tail Pipe Depth: ft
			Sqz. Total Vol. bbl

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
10/21/2013	15:42:34	7	0.0	8.47	0.0	Started Acquisition
10/21/2013	15:42:44	7	0.0	8.47	0.0	Start Job
10/21/2013	15:43:00	7	0.0	8.47	0.0	Break Circualtion
10/21/2013	15:47:34	29	3.0	8.41	4.7	
10/21/2013	15:52:34	61	0.1	8.41	16.6	
10/21/2013	15:57:34	7	0.0	8.41	24.8	
10/21/2013	16:01:29	33	0.3	8.41	25.3	Circulation at 20bbl away
10/21/2013	16:01:35	35	0.5	8.41	25.4	Drop Balls
10/21/2013	16:02:20	41	3.1	8.41	27.2	Open Float incert
10/21/2013	16:02:34	44	3.3	8.41	28.0	
10/21/2013	16:06:40	1217	0.0	8.41	31.4	Pressure Test 1500psi
10/21/2013	16:07:34	12	0.0	8.41	31.4	
10/21/2013	16:08:44	64	4.3	8.41	32.4	Pumping water spacer
10/21/2013	16:10:35	10	0.0	8.41	39.5	Start mixing cmt 14#
10/21/2013	16:11:27	19	0.3	8.41	39.5	Reset Total, Vol = 7.11 bbl
10/21/2013	16:11:37	107	5.8	11.39	40.1	Pumping CMT
10/21/2013	16:12:34	90	4.4	14.32	44.4	
10/21/2013	16:17:34	89	4.5	14.19	66.2	
10/21/2013	16:20:43	3	0.1	14.67	78.9	End CMT
10/21/2013	16:20:45	3	0.1	14.67	78.9	Reset Total, Vol = 39.39 bbl
10/21/2013	16:20:49	4	0.1	14.67	78.9	Drop Top Plug

Well	Field	Job Start	Customer	Job Number
John Craig 1-2	Wildcat	Oct/21/2013	Nighthawk	COU5-00062

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
10/21/2013	16:22:34	22	0.6	14.59	79.0	
10/21/2013	16:27:34	67	1.1	8.43	92.6	
10/21/2013	16:31:09	1079	0.0	8.42	99.1	Bump Plug
10/21/2013	16:32:22	48	0.0	8.42	99.1	Bleed pressure
10/21/2013	16:32:34	49	0.0	8.42	99.1	
10/21/2013	16:33:26	65	0.0	8.42	99.1	Float not holding
10/21/2013	16:33:34	66	0.0	8.42	99.1	Try again
10/21/2013	16:35:21	1314	0.0	8.43	101.7	Pressure up 1300
10/21/2013	16:37:34	1287	0.0	8.43	101.7	Hold pressure
10/21/2013	16:39:17	9	0.0	8.43	101.7	Bleed pressure check float
10/21/2013	16:39:23	9	0.0	8.43	101.7	Float holding
10/21/2013	16:39:47	11	0.0	8.43	101.7	.25 bbl returned
10/21/2013	16:40:00	11	0.0	8.43	101.7	End Job
10/21/2013	16:40:04	11	0.0	8.43	101.7	Stopped Acquisition

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
2.9			5.8	40.0	0.0	20.0	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
1314	11	174	1000			bbl	lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp		
%	40.0 bbl	18.5 bbl	65 degF	Cement Circulated to Surface? [x]	Volume 7.0 bbl
				Washed Thru Perfs [ ]	To ft

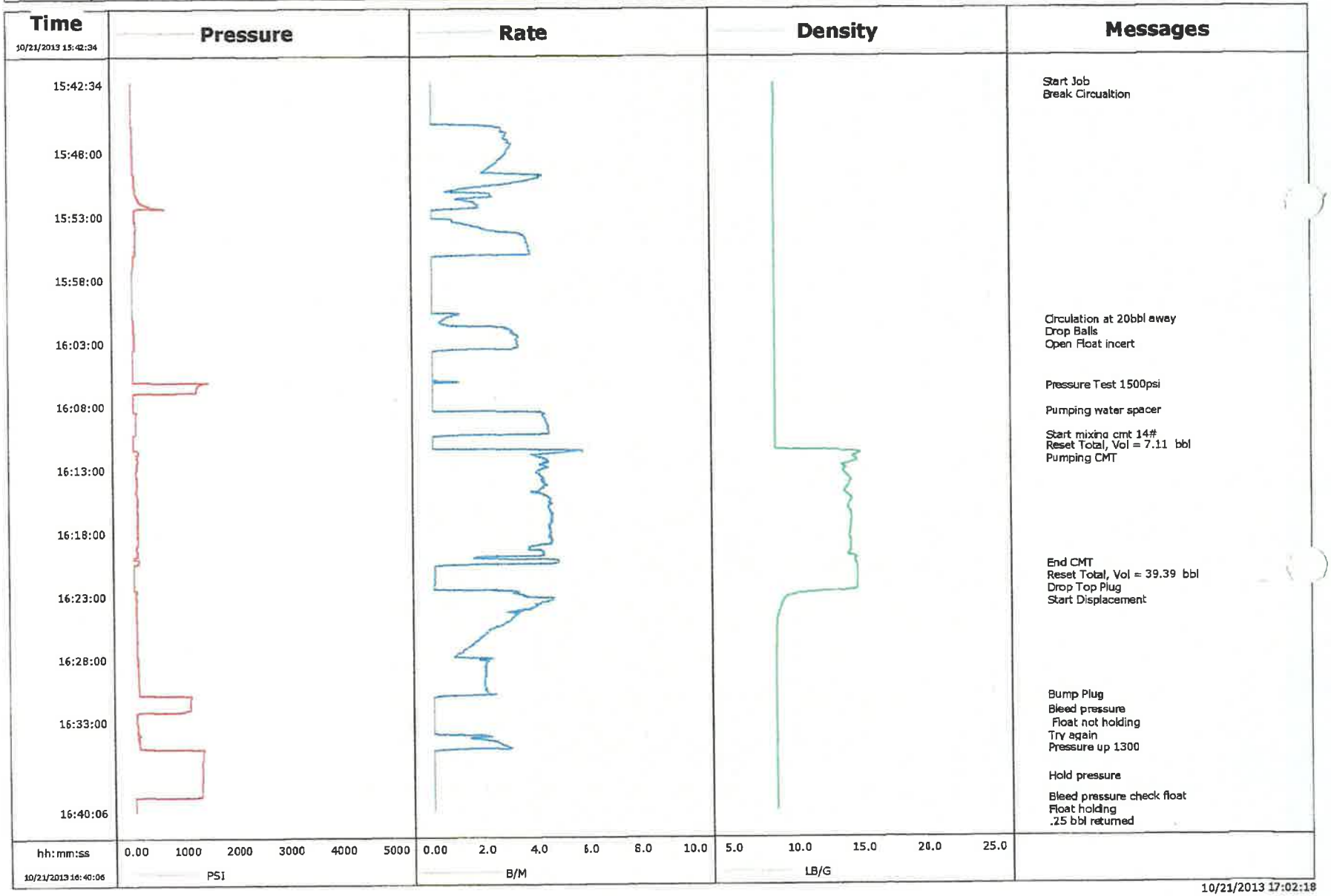
Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
Jim Weir	Chris Valerio	-	-

Schlumberger

Cementing Job Report

CemCAT v1.5

Well	John Craig	**Client**	Nighthawk
Field	Wildcat	**SIR No.**	COU5-00062
Engineer	Chris Valerio	**Job Type**	Surface
Country	United States	**Job Date**	10-21-2013



10/21/2013 17:02:18